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San Luis Obispo County
Pension Trust
SLOCPT



2016 Annual Actuarial Valuation

Included in this package are the following documents:

- 2016 Actuarial Valuation cover memo to Board of Trustees – Adopted as of June 27, 2016
- 2016 Actuarial Valuation – Gabriel Roeder Smith, Plan Actuary
- Presentation by Plan Actuary to the Board of Trustees – June 27, 2016
- Supplementary Exhibits
 - Delayed implementation – Contribution Rate Increase
 - Allocation of Annually Required Contribution (ARC) by Class
 - Normal Cost by Tier and Class
 - Projection of Funded Status, Contribution Rates – 2016-2046

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Board of Trustees

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San Luis Obispo County
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Date: June 27, 2016

To: Board of Trustees

From: Carl Nelson - Executive Secretary
Amy Burke - Deputy Executive Secretary

Agenda Item Number 8: January 1, 2016 Actuarial Valuation – Final Report

Accompanying this memo are –

- A presentation by Leslie Thompson, Actuary, of Gabriel Roeder Smith (GRS) on the results of the 2016 Annual Actuarial Valuation of the Plan.
- The draft January 1, 2016 Annual Actuarial Valuation prepared by GRS.
- A 30 year projection of funded status and contribution rates for the Plan.
- An exhibit calculating the level of contribution rate increase necessary at various delayed implementation dates.

Recommendation:

It is recommended that the Board take the following actions:

1. Approve the January 1, 2016 Actuarial Valuation.
2. Approve the transfer of \$33,384,213 from the Current Reserve to the Retiree Reserve as recommended by GRS in Comment H of the Valuation.
3. Approve the recommendation of GRS in Comment D of the Valuation (page 1) to increase the current level of County Appropriation and Employee Contribution rates such that a Total Contribution Rate of 38.90% effective January 1, 2016 is received - an increase of 4.85%. This increase is subject to delayed implementation as may be requested by the Plan Sponsor, with adjustments to the rate calculated by GRS to account for the deferred implementation.

Discussion – Contribution Rate:

The valuation results indicate that it is necessary to increase the current level of County Appropriation and Employee Contribution rates such that a Total Contribution Rate of 38.90% effective January 1, 2016 is received. The Charged Rate of Total Contribution as of January 1, 2016 is expected to be 34.05%. Therefore, an increase of 4.85% in the Total Contribution Rate will be necessary. The Total Contribution Rate increase will need to be actuarially adjusted upward for a deferred implementation date should the plan sponsor request deferral. For example, an implementation date of January 1, 2016 would require a 5.17% increase in aggregate rates.

The dominant factors in the necessary increase are changes in actuarial assumptions – particularly mortality rates – and overall Plan investment results. There are no distinguishing factors affecting any single Tier or Class of membership as part of the 2016 rate increase.

In the accompanying presentation from GRS, slides 15 and 16 provide a summary of the attribution of the 4.85% rate increase to various factors.

Discussion – Funded Ratio:

The valuation results also indicate that the funded ratio of the Plan – Accrued Liabilities (AL) vs. Actuarial Value of Assets (AVA) has declined from 76.70% in 2015 to 71.4 % in 2016. The funded ratio decline reflects the \$144 million increase in the AL from \$1.61 billion to \$1.75 billion or nearly a 9% increase. At the same time, the AVA increased only about 1% from \$1.23 billion to \$1.25 billion or \$17 million. As a result, the Unfunded Accrued Liability (UAL) increased from \$374 million to \$501 million.

The dominant factors in the decline in funded ratio and the increase in the UAL were the multiple actuarial assumption changes (especially to mortality) and the cumulative investment experience reflected in the AVA. The investment experience included in the AVA change continues to reflect the last few years of smoothing-in the results of the 2008 market on a 10 year basis and the smoothing in of other years' investment returns on a 5 year basis including the disappointing 2014 and 2015 investment returns.

In the accompanying presentation from GRS, slide 19 provides a summary of the attribution of the decline in the funded ratio to various factors.

Respectfully submitted,

Carl Nelson
Executive Secretary

Amy Burke
Deputy Executive Secretary

SAN LUIS OBISPO COUNTY PENSION TRUST
ACTUARIAL VALUATION REPORT
FOR THE YEAR BEGINNING JANUARY 1, 2016

TABLE OF CONTENTS

		Page
	COVER LETTER	
Section A	VALUATION COMMENTS & RECOMMENDATIONS	1
Section B	EXECUTIVE SUMMARY AND RATE RECONCILIATION	3
Section C	FUNDING PROGRESS	5
Section D	VALUATION RESULTS	7
Section E	SUMMARY OF BENEFIT PROVISIONS	15
Section F	SUMMARY OF MEMBER DATA	22
Section G	ACTIVE DATA TABLES	32
Section H	RETIREE DATA TABLES	40
Section I	VALUATION METHODS & ASSUMPTIONS	48
Section J	DEFINITIONS OF TECHNICAL TERMS	57
Section K	DISCLOSURES UNDER GOVERNMENTAL ACCOUNTING STANDARDS BOARD	58
Section L	APPENDIX A: MEMBER CONTRIBUTION RATES AND COLLECTIVE BARGAINING UNITS	60

June 16, 2016

San Luis Obispo County Pension Trust
1000 Mill Street
San Luis Obispo, CA 93408

Members of the Board:

Submitted in this report are the results of the regular Annual Actuarial Valuation as of January 1, 2016 of the San Luis Obispo County Pension Trust (SLOCPT). The valuation is intended to provide a measure of the funding status of the pension trust. This valuation provides information relative to the employer appropriation rates for the County's fiscal year beginning July 1, 2016.

The member statistical data on which the valuation was based was furnished by the staff of the SLOCPT, together with pertinent data on financial operations. Data was reviewed for reasonableness, but was not audited by the actuary.

The valuation results are developed using the Entry Age Cost Method. Under this method, normal cost is calculated as a constant percentage of the member's year-by-year projected, covered pay. The amortization of the unfunded actuarial accrued liabilities is done as a level percent of payroll over 24 years (30 year closed amortization period beginning with the January 1, 2010 valuation) for funding computations. In addition, the 2008 asset losses are recognized over 10 years, with recognition accelerated if a positive contribution margin develops. A margin does not exist this year and no acceleration has been recognized.

In the January 1, 2016 valuation, the Trust's funded status decreased from 76.7% to 71.4%. The total annual required contribution is 38.90% as of January 1, 2016, compared to the total charged rates of 34.05%. Therefore, due the difference between the charged rate and the Annual Required Contribution an increase in the charged rates is recommended at this time.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code and ERISA. The undersigned are independent actuaries and consultants. Leslie Thompson is a Member of the American Academy of Actuaries, and meets all the Qualification Standards of the American Academy of Actuaries.

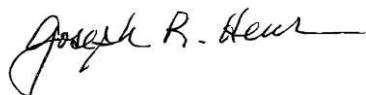
The cooperation of the Pension Trust Office in furnishing materials requested for this valuation is deeply acknowledged with appreciation.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Leslie L. Thompson, FSA, FCA, EA, MAAA
Senior Consultant



Joseph R. Herm
Senior Analyst

SECTION A

VALUATION COMMENTS & RECOMMENDATIONS

VALUATION COMMENTS & RECOMMENDATIONS

COMMENT A: As of January 1, 2013, Tier 2 was effectively closed and most new hires enter under the provisions of Tier 3 (known as AB 340; some new members enter Tier 2 by virtue of reciprocity). As of January 1, 2016, there are 592 active members covered under Tier 3 compared to 387 active members covered as of the prior valuation. See Section F for additional details regarding the active membership in each tier.

COMMENT B: This valuation includes assumption changes adopted by the Board based on the Experience Study performed for the five-year period ending December 31, 2015. These changes include changing the retirement rates, mortality assumptions, marriage assumption, discount rate, inflation rate, salary scale, COLA assumptions, and termination rates. The net impact of these changes is a \$62.8 million increase in the accrued liability.

COMMENT C: The total normal cost decreased from 21.64% to 21.35% reflecting the addition of lower cost Tier 3 members as Tier 1 members leave the plan. Employee contribution rates were increased since the prior valuation for most members in all Tiers. In addition, the weighted average employee rate decreased from 13.93% to 13.88% as Tier 3 members entered the plan. The County share of the normal cost decreased from 7.71% to 7.47%. Overall, the computed County Employer actuarial appropriation rate for the Pension Trust increased from 20.84% to 25.01% effective for the fiscal year beginning July 1, 2016. While the cost for the Tier 3 members is expected to bring down the blended member contribution rate due the additional Tier 3 members declined as well. In fact, the total charged member rate declined more rapidly than the blended normal cost, thereby increasing the actuarially determined contribution rate for the County. The funded ratio under the Entry Age Normal funding method decreased from 76.7% to 71.4%.

COMMENT D: The total charged rate in 2016 is expected to be 34.05% including the 1.02% increase effective January 1, 2016. The total annual required contribution is 38.90% as of January 1, 2016. Since the margin between the charged rate and the required rate has grown to 4.85%, an increase in the charged rate is recommended.

COMMENT E: As of the January 1, 2010 valuation, the total required contribution was based on smoothing the 2008 asset loss over a 10 year schedule. The funding policy of the Board is to accelerate the remaining deferred losses from the 2008 asset loss each valuation if a positive contribution margin develops between the actuarially determined rate and the charged rate. As of January 1, 2011 and again as of January 1, 2014, a margin had developed and an additional \$10 million of the 2008 loss was accelerated and recognized in the 2011 and 2014 valuations. The return on the market value of assets was -1.44% for the past year, and the return on the actuarial value of assets was 3.01%. As noted above, a contribution shortfall exists and no acceleration of the loss has been recognized this year.

COMMENT F: The plan experienced a loss from investments and a net loss from demographic sources. The key sources of the gains and losses were an actuarial loss of \$51.8 million from investments (described as the return on the actuarial value of assets less than the assumed 7.25% yield). The actuarial asset yield of 3.01% did not exceed the 7.25% benchmark for the prior year. The return on the market value of assets as calculated by the SLOCPT investment consultants was -1.44%.

VALUATION COMMENTS & RECOMMENDATIONS

- A \$4.8 million loss due to compensation increases for continuing active members being more than the expected increase. A continuing active member is a member who was active as of the last valuation date, and is active as of this valuation date. The average increase for continuing active members was 5.96%.
- An \$7.8 million loss due to retirement. This loss reflects more retirements than anticipated.
- A \$4.3 million loss on retiree mortality, meaning that retired participants in pay status lived longer than assumed.

COMMENT G: The Pension Trust adopted a closed amortization period of 30 years as of January 1, 2010. Payments on the unfunded accrued liability are amortized over 24 years as of the January 1, 2016 valuation.

COMMENT H: We recommend that the reserve for Retirees and Beneficiaries be updated to reflect the computed liability in the most recent valuation. With the Trust's current accounting (the County pays for all COLA benefits), this can only be done for non-COLA benefits. The COLA reserve includes amounts attributable to current active and deferred vested members. According to the financial statements as of December 31, 2015, the reserve for retirees and beneficiaries is \$779,037,833. The non-COLA liabilities calculated were \$812,422,046. Accordingly, we recommend that the Trust transfer this \$33,384,213 difference out of the Current Reserve and back into the Retiree Reserve.

COMMENT I: Member rates change regularly as a result of collective bargaining negotiations. See Appendix A in Section L for a complete description of these rates for all bargaining units.

COMMENT J: Total pension costs also include the debt financing related to the 2003 pension obligation bond of \$135 million. The annual debt financing payment for calendar year 2016 is approximately \$9.9 million -- 5.59% of active member payroll. When this percent is added to the valuation computed appropriation rate of 25.01% the total rate of 30.60% more accurately reflects total County pension costs.

COMMENT K: There are approximately \$113 million in deferred asset losses yet to be recognized. Barring continued recovery in the equity markets to offset the recognition of these losses, upward pressure will continue to exist on the required contribution rate.

SECTION B

EXECUTIVE SUMMARY AND RATE RECONCILIATION

EXECUTIVE SUMMARY

Valuation Date:	January 1, 2016	January 1, 2015
	(1)	(2)
Membership		
• Number of		
- Active Members	2,609	2,550
- Retirees and Beneficiaries	2,517	2,401
- Inactive, Vested	450	451
- Total	5,576	5,402
• Total Payroll (000s)	\$ 177,004	\$ 167,695
• Average Pay	\$ 67,844	\$ 65,763
Assets		
• Market Value (000s)	\$1,135,803	\$1,173,336
• Actuarial Value (000s)	\$1,248,328	\$1,231,474
• Return on Market Value	-1.44%	4.58%
• Return on Actuarial Value	3.01%	5.27%
Actuarial Liabilities and Funded Ratio		
• Actuarial Accrued Liability (000s)		
- Active Members	\$ 628,331	\$ 598,424
- Retirees and Beneficiaries	1,059,302	946,455
- Inactive, Vested	61,709	60,712
- Total	\$1,749,342	\$1,605,591
• Unfunded Actuarial Accrued Liability (UAAL) (000s)	\$ 501,014	\$ 374,117
• Funded Ratio	71.4%	76.7%
• UAAL based on Market Value	\$ 613,539	\$ 432,255
• Funded Ratio Based on Market Value	64.9%	73.1%
Annual Required Contribution		
• Total Normal Cost	21.35%	21.64%
• Member Contributions	13.88%	13.93%
• County Normal Cost	7.47%	7.71%
• Amortization Payment	17.55%	13.13%
• Total County Cost (ARC)	25.01%	20.84%
• Total Combined ARC	38.90%	34.77%

RECONCILIATION OF CHARGED RATES AND TOTAL ARC

Valuation Date	January 1, 2016	January 1, 2015
Total Annual Required Contribution (ARC)	38.90%	34.77%
County Charged Rate	19.08%	19.19%
Member Charged Rate	<u>13.95%</u>	<u>14.62%</u>
Total Charged Rate	33.03%	33.82%
Increase to Charged Rate as of January 1, 2016*	1.02%	
Total Charged Rate as of January 1	34.05%	33.82%
Difference between the ARC and the Charged Rate	4.85%	0.95%
Recommended Rate Increase as of January 1	4.85%	0.95%*

*The recommended rate increase as of January 1, 2015 was 0.95%. However, the rate increase was implemented on January 1, 2016 and therefore was increased to 1.02%.

SECTION C

FUNDING PROGRESS

FUNDING OBJECTIVE

The funding objective of the Pension Trust is to establish and receive contributions, expressed as a percent of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

CONTRIBUTION RATES

The Pension Trust is supported by member contributions, County appropriations, and investment income from Pension Trust assets.

Contributions and appropriations which satisfy the funding objective are determined by the annual actuarial valuation and are intended to finance over a period of future years the actuarial present value of benefits not covered by valuation assets as a level percentage of future payroll. The allocation of the contributions and appropriations between the County and employees is determined by negotiations between the County and the recognized bargaining units.

Computed contributions and appropriations as of the January 1, 2016 valuation are shown in the following section.

FUNDING POLICY

The policy adopted by the Board is to recommend the full funding of the Total Annual Required Contribution. This includes a 30 year closed amortization of the unfunded accrued liability. In addition, the 2008 asset loss was originally amortized over 10 years, with the understanding that, as contribution margin develops (the contribution margin is the difference between the charged rate and the total annual required contribution) then the recognition of the remaining deferred losses from the 2008 asset loss will be accelerated. As of the January 1, 2011 valuation and again as of the January 1, 2014 valuations, an additional \$10 million of the deferred losses was accelerated and recognized. The remaining losses will continue to be smoothed over the original 10 year period (3 years remaining as of January 1, 2016).

Schedule of Recognition of 2008 Asset Loss

Original Schedule				Updated Schedule		
Plan	Remaining Loss at Beginning	Amount Recognized	Remaining Loss at End	Remaining Loss at Beginning	Amount Recognized	Remaining Loss at End
<u>Year</u>	<u>of Plan Year</u>	<u>Recognized</u>	<u>of Plan Year</u>	<u>of Plan Year</u>	<u>Recognized</u>	<u>of Plan Year</u>
2009	\$ 299,363,960	\$ 29,936,396	\$ 269,427,564	\$ 299,363,960	\$ 29,936,396	\$ 269,427,564
2010	269,427,564	29,936,396	239,491,168	269,427,564	29,936,396	239,491,168
2011	239,491,168	29,936,396	209,554,772	239,491,168	29,936,396	199,554,772
2012	209,554,772	29,936,396	179,618,376	199,554,772	29,936,396	169,618,376
2013	179,618,376	29,936,396	149,681,980	169,618,376	29,936,396	139,681,980
2014	149,681,980	29,936,396	119,745,584	139,681,980	29,936,396	99,745,584
2015	119,745,584	29,936,396	89,809,188	99,745,584	29,936,396	69,809,188
2016	89,809,188	29,936,396	59,872,792	69,809,188	29,936,396	39,872,792
2017	59,872,792	29,936,396	29,936,396	39,872,792	29,936,396	9,936,396
2018	29,936,396	29,936,396	0	9,936,396	9,936,396	0

SECTION D

VALUATION RESULTS

ELEMENTS OF NORMAL COST

January 1, 2016

MISCELLANEOUS VALUATION GROUPS

	Other	Management				SLOCEA				TOTAL
	BU #21-22	Non Court	Court BU #18	Court BU #24-27	Total Mgmt	Non Court	Court BU #19	Court BU #20	Total SLOCEA	MISC.
Service Retirement	15.53%	18.39%	21.00%	23.55%	18.78%	16.30%	16.07%	15.51%	16.27%	17.02%
Vesting	1.81%	1.79%	1.36%	1.47%	1.76%	1.56%	1.97%	1.76%	1.57%	1.63%
Death-In-Service	0.15%	0.27%	0.10%	0.32%	0.27%	0.20%	0.07%	0.09%	0.19%	0.21%
Disability	0.28%	0.30%	0.29%	0.32%	0.30%	0.27%	0.30%	0.27%	0.27%	0.28%
Refunds	<u>1.50%</u>	<u>1.38%</u>	<u>1.45%</u>	<u>1.00%</u>	<u>1.35%</u>	<u>1.33%</u>	<u>1.16%</u>	<u>1.30%</u>	<u>1.33%</u>	<u>1.34%</u>
Total Normal Cost	19.27%	22.13%	24.20%	26.66%	22.46%	19.66%	19.57%	18.93%	19.63%	20.48%
Less										
Employee Contribution Rate	13.12%	14.21%	14.43%	13.54%	14.17%	13.03%	11.25%	11.17%	12.94%	13.32%
Equals										
County Normal Cost	6.15%	7.92%	9.77%	13.12%	8.29%	6.63%	8.32%	7.76%	6.69%	7.16%

ELEMENTS OF NORMAL COST

January 1, 2016

	Probation			Safety					GRAND TOTAL
	Mgmt	Non	Total	Management		Non-Mgmt		Total	
		Mgmt	Probation	Sworn	Non-Sworn	Sworn	Non-Sworn	Safety	
Service Retirement	16.14%	15.82%	15.85%	25.09%	18.00%	20.40%	18.98%	19.95%	17.38%
Vesting	4.59%	3.72%	3.80%	1.63%	2.24%	2.20%	1.97%	2.07%	1.79%
Death-In-Service	0.34%	0.22%	0.23%	0.63%	0.19%	0.40%	0.30%	0.36%	0.23%
Disability	0.32%	0.29%	0.30%	2.79%	2.68%	2.79%	2.87%	2.82%	0.64%
Refunds	<u>2.60%</u>	<u>2.14%</u>	<u>2.18%</u>	<u>0.94%</u>	<u>0.89%</u>	<u>0.95%</u>	<u>0.71%</u>	<u>0.84%</u>	<u>1.31%</u>
Total Normal Cost	23.99%	22.19%	22.36%	31.08%	24.00%	26.74%	24.83%	26.04%	21.35%
				Less					
Employee Contribution Rate	19.06%	16.23%	16.50%	20.93%	19.50%	17.91%	14.25%	16.43%	13.88%
				Equals					
County Normal Cost	4.93%	5.96%	5.86%	10.15%	4.50%	8.83%	10.58%	9.61%	7.47%

COMPUTED COUNTY APPROPRIATION RATES
TOTAL (EXPRESSED AS PERCENTS OF ACTIVE PAYROLL)

	Miscellaneous		Probation	
County Appropriations	2016	2015	2016	2015
Total normal costs	7.16%	7.38%	5.86%	5.88%
Amortization (24 years)	<u>16.65%</u>	<u>12.50%</u>	<u>16.20%</u>	<u>12.13%</u>
Total Cost	23.82%	19.88%	22.07%	18.01%
Unfunded Liability (000's)	\$389,241	\$291,332	\$ 20,142	\$ 14,871

	Safety		Total Plan	
County Appropriations	2016	2015	2016	2015
Total normal costs	9.61%	10.13%	7.47%	7.71%
Amortization (24 years)	<u>23.28%</u>	<u>17.12%</u>	<u>17.55%</u>	<u>13.13%</u>
Total Cost	32.89%	27.25%	25.01%	20.84%
Unfunded Liability (000's)	\$ 91,631	\$ 67,915	\$501,015	\$374,118

Breakdown of Total normal cost between the Basic Allowance and Cost of Living

County	Misc.	Prob.	Safety	2016	2015
Basic Allowance	2.68%	0.82%	3.25%	2.69%	2.82%
Cost of Living	<u>4.48%</u>	<u>5.04%</u>	<u>6.36%</u>	<u>4.78%</u>	<u>4.89%</u>
Total Normal Costs	7.16%	5.86%	9.61%	7.47%	7.71%

UNFUNDED ACTUARIAL ACCRUED LIABILITY

DECEMBER 31, 2015

The actuarial gains or losses realized in the operation of the Pension Trust provide an experience test. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below.

(1) UAAL at beginning of the year	\$374,117,632
(2) County normal cost	13,248,543
(3) County contributions made during year	33,618,330
(4) Interest accrual $[(1) + ((2) - (3))/2] * 7.25\%$	26,385,124
(5) Increase/(Decrease) in UAAL due to assumption change	62,845,241
(6) Increase in UAAL due to provision changes	0
(7) Expected UAAL at end of year	\$442,978,210
$[(1) + (2) - (3) + (4) + (5) + (6)]$	
(8) Actual UAAL at end of year	\$501,014,705
(9) Experience Gain/(Loss): (7) - (8)	(\$58,036,495)
(10) Gain (loss) as percentage of actuarial accrued liabilities at beginning of year	
\$1,605,591,209	-3.61%

Estimated Components of Experience Gain/(Loss)

Gain/(Loss) due to compensation increases	(\$4,808,113)
Gain/(Loss) due to investment experience	(51,778,664)
Gain/(Loss) due to accelerated recognition of 2008 loss	0
Gain/(Loss) due to retirement incidence	(7,840,537)
Gain/(Loss) due to termination experience	(627,782)
Gain/(Loss) due to active mortality experience	121,593
Gain/(Loss) due to disability experience	219,588
Gain/(Loss) due to retiree & beneficiary mortality experience and miscellaneous retiree data changes	(4,310,856)
Gain/(Loss) due to new members	(1,153,453)
Gain/(Loss) due to COLAs	7,634,706
Gain/(Loss) due to other data changes and miscellaneous factors	4,507,023
Total Estimated Experience Gain/(Loss)	(\$58,036,495)

EXPERIENCE GAIN (LOSS) – COMPARATIVE SCHEDULE

JANUARY 1, 2016

Percentage of Accrued Liabilities

Valuation Date	Actuarial Gain (Loss)	Beginning of Year Accrued Liabilities	Gain (Loss) Percentage Attributable to Investments	Gain (Loss) Percentage Not Attributable to Investments	Total Gain (Loss) Percentage
1/1/2002	(\$7,090,396)	\$446,333,883	(0.30)%	(1.29)%	(1.59)%
1/1/2003	(31,319,034)	492,795,245	(2.79)%	(3.57)%	(6.36)%
1/1/2004	(19,544,002)	556,320,953	(1.45)%	(2.06)%	(3.51)%
1/1/2005	(10,820,472)	642,734,312	(1.15)%	(0.53)%	(1.68)%
1/1/2006	(36,097,371)	715,084,943	(1.34)%	(3.71)%	(5.05)%
1/1/2007	(12,682,702)	831,289,683	0.01 %	(1.54)%	(1.53)%
1/1/2008	(8,713,157)	962,827,691	0.50 %	(1.40)%	(0.90)%
1/1/2009	(85,180,942)	1,057,124,348	(3.09)%	(0.70)%	(3.78)%
1/1/2010	3,281,208	1,150,214,145	(1.55)%	1.84 %	0.29 %
1/1/2011	3,596,270	1,216,153,057	(0.55)%	0.85 %*	0.30 %
1/1/2012	12,704,448	1,282,058,335	(1.73)%	2.72 %	0.99 %
1/1/2013	(18,925,942)	1,378,549,314	(0.83)%	(0.54)%	(1.37)%
1/1/2014	(1,139,190)	1,468,000,678	(0.77)%	0.69 %*	(0.08)%
1/1/2015	(32,743,994)	1,518,751,027	(1.53)%	(0.63)%	(2.16)%
1/1/2016	(58,036,495)	1,605,591,209	(3.22)%	(0.39)%	(3.61)%

*The Board elected to accelerate recognition of \$10 million of the 2008 loss for the year ending December 31, 2010 and December 31, 2013.

ACTUARIAL BALANCE SHEET

JANUARY 1, 2016

Present Resources and Expected Future Resources

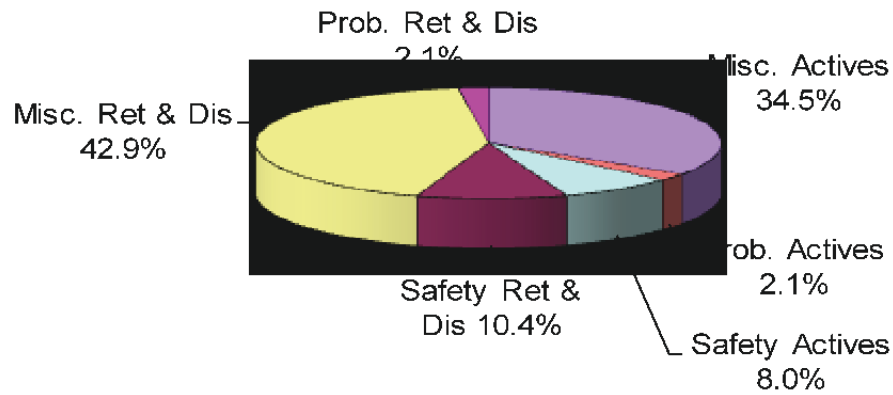
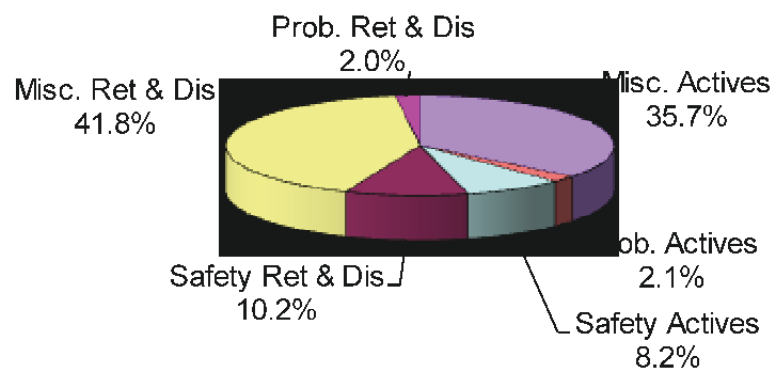
	(thousands)			
	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand Total*</u>
A. Actuarial value of system assets	\$969,833	\$50,186	\$228,308	\$1,248,328
B. Present value of expected future County appropriations				
1. Unfunded past service	389,241	20,142	91,631	501,015
2. Expected future service	<u>67,354</u>	<u>3,769</u>	<u>19,047</u>	<u>90,168</u>
3. Total future County	\$456,595	\$23,911	\$110,678	\$591,183
C. Present value of expected future member contributions	<u>136,780</u>	<u>10,781</u>	<u>32,794</u>	<u>180,355</u>
D. Total Present and Expected Future Resources	<u>\$1,563,208</u>	<u>\$84,878</u>	<u>\$371,780</u>	<u>\$2,019,866</u>

Present Value of Expected Future Benefit Payments and Reserve

	(thousands)			
	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand Total*</u>
A. To Retirees and Beneficiaries	\$812,462	\$41,654	\$205,186	\$1,059,302
B. To Deferred and Reciprocal	54,289	1,726	5,694	61,709
C. Active members				
1. Service rendered prior to valuation date	492,323	26,949	109,059	628,331
2. Expected future service	<u>204,134</u>	<u>14,549</u>	<u>51,841</u>	<u>270,524</u>
D. Total Present Value of Expected Future Benefits	<u>\$1,563,208</u>	<u>\$84,878</u>	<u>\$371,780</u>	<u>\$2,019,866</u>

* Grand Total may not add due to rounding.

PRESENT VALUE OF BENEFIT ALLOCATION

2016**2015**

FUNDING PROGRESS INDICATORS HISTORIC COMPARISON

(\$ in Thousands)

Valuation Date	Valuation Assets ¹	Actuarial Liability ¹	Funded Ratio	Unfunded Actuarial Liability	Member Payroll	Ratio to Payroll
12/31/2001	\$404,751	\$492,795	92.1%	\$88,044	\$120,637	73.0%
12/31/2002	430,351	556,321	77.4%	125,970	131,997	95.4%
12/31/2003	604,808	619,257	97.7%	14,449	136,364	10.6%
12/31/2003 ⁵	604,808	637,075	94.9%	32,267	136,364	23.7%
12/31/2003 ^{2,5}	604,808	642,734	94.1%	37,926	136,364	27.8%
12/31/2004 ²	651,751	713,683	91.3%	61,932	135,189	45.8%
12/31/2004 ⁶	651,751	715,085	91.1%	63,334	135,189	46.8%
12/31/2005	700,060	803,124	87.2%	103,064	143,902	71.6%
12/31/2005 ⁷	700,060	818,864	85.5%	118,804	143,902	82.6%
12/31/2005 ^{2,7}	700,060	831,290	84.2%	131,230	143,902	91.2%
12/31/2006	759,758	912,458	83.3%	152,700	152,117	100.4%
12/31/2006 ²	759,758	920,285	82.6%	160,527	152,117	105.5%
12/31/2006 ^{2,8}	759,758	994,861	76.4%	235,103	152,117	154.6%
12/31/2006 ⁹	759,758	962,828	78.9%	374,118	152,117	245.9%
12/31/2007	829,764	1,055,868	78.6%	226,104	162,436	139.2%
12/31/2007 ¹⁰	829,764	1,057,124	78.5%	227,360	162,436	140.0%
12/31/2008	875,602	1,150,214	76.1%	274,612	168,677	162.8%
12/31/2009	937,279	1,216,153	77.1%	278,874	160,444	173.8%
12/31/2010	1,000,169	1,282,058	78.0%	281,889	161,783	174.2%
12/31/2011	1,057,922	1,334,545	79.3%	276,623	161,055	171.8%
12/31/2011 ^{2,11}	1,057,922	1,378,549	76.7%	320,627	161,055	199.1%
12/31/2012 ¹¹	1,122,151	1,468,001	76.4%	345,850	164,299	210.5%
12/31/2013 ¹²	1,182,924	1,518,751	77.9%	335,827	164,704	203.9%
12/31/2014	1,231,474	1,605,591	76.7%	374,117	167,695	223.1%
12/31/2015	1,248,328	1,686,497	74.0%	438,169	177,004	247.5%
12/31/2015 ¹³	1,248,328	1,749,342	71.4%	501,014	177,004	283.1%

¹ Assets and liabilities do not include Employee Additional Reserve amounts (in \$) of:

12/31/2015	\$4,362,000	12/31/2010	\$8,558,571	12/31/2005	\$12,773,875
12/31/2014	5,295,316	12/31/2009	9,341,043	12/31/2004	13,601,745
12/31/2013	5,942,492	12/31/2008	10,397,974	12/31/2003	13,558,875
12/31/2012	6,606,149	12/31/2007	11,507,242	12/31/2002	13,510,256
12/31/2011	7,462,567	12/31/2006	12,181,467	12/31/2001	13,734,603

² Reflects assumption changes.

³ Reflects change to Entry Age Normal Funding.

⁴ Reflects benefit increases for most Miscellaneous and Probation active members.

⁵ Reflects benefit increases for all management employees, excluding Court management.

⁶ Reflects benefit increases for Safety management; and Court employees in BU #19 and BU #24-#27.

⁷ Reflects benefit increases for Safety non-management; Miscellaneous "Other" and SLOCEA Non-Court.

⁸ Reflects benefit increases for Probation and Safety members.

⁹ Reflects assumption change to 7.75%.

¹⁰ Reflects benefit increases for Miscellaneous Court employees in BU #18 and BU #20.

¹¹ Reflects benefit provisions under Tier 2 for certain new members.

¹² Reflects benefit provisions under Tier 3 for new members, and assumption changes.

¹³ Reflects assumptions changes

SECTION E

SUMMARY OF BENEFIT PROVISIONS

BRIEF SUMMARY OF BENEFIT PROVISIONS EVALUATED EFFECTIVE JANUARY 1, 2016

1. Membership Requirements – All regular permanent employees of the County or district covered by the County or agencies that have contracted with the County to participate in the Pension Trust.
2. Tiers
 Tier 1 generally includes new members hired before January 1, 2011.
 Tier 2 generally includes new members hired on or after January 1, 2011 and before January 1, 2013. Tier 2 only applies to members hired after the date each particular bargaining unit adopted Tier 2. Members hired in a bargaining unit that did not adopt Tier 2 are considered Tier 1 members.
 Tier 3 includes all new members hired on or after January 1, 2013.
3. Final Compensation – Highest one-year average for employees in Tier 1 and “Pick Up” included as compensation for various management employees. Bargaining Units #4, 7, 8, 9, 10, 11, 12, 17, 24-27, 99

Pick Up Percentage included in final average
compensation:

<u>Bargaining Unit</u>	<u>Pick Up</u>
4,7,8,9,11,12,99	9.29%
10	13.55%
17	13.59%
24-27	7.74%

Highest three-year average for employees in Tier 2 and
Tier 3

4. Member Contributions
 Please refer to Appendix A. Employee contribution rates used in the January 1, 2016 valuation have increased since the January 1, 2015 valuation for most members.
5. Service Retirement
 - A. Eligibility - Age 50 with 5 years of service (Age 52 with 5 years of service for Miscellaneous members in Tier 3).
 - B. Benefit Formula - Final Compensation multiplied by Years of Credited Service multiplied by Retirement Age Factor.

BRIEF SUMMARY OF BENEFIT PROVISIONS EVALUATED EFFECTIVE JANUARY 1, 2016

C. Retirement Age Factors

Age	Safety				
	Tier 1 ¹	Tier 1 ²	Tier 2 ³	Tier 2 ⁴	Tier 3
50	2.30%	3.00%	2.000%	2.300%	2.00%
51	2.440	3.000	2.140	2.440	2.100
52	2.580	3.000	2.280	2.580	2.200
53	2.720	3.000	2.420	2.720	2.300
54	2.860	3.000	2.560	2.860	2.400
55	3.000	3.000	2.700	3.000	2.500
56	3.000	3.000	2.700	3.000	2.600
57+	3.000	3.000	2.700	3.000	2.700

Age	Probation	
	Tier 1	Tier 3
50	2.30%	2.00%
51	2.440	2.100
52	2.580	2.200
53	2.720	2.300
54	2.860	2.400
55	3.000	2.500
56	3.000	2.600
57+	3.000	2.700

¹ Safety Bargaining Units 6 & 7 and Non-Sworn Bargaining Units 3, 14, 15

² Safety Bargaining Units 10 & 16 and Sworn Bargaining Units 15, 27, 28

³ Non-Sworn Safety members

⁴ Sworn Safety members

Age	Miscellaneous		
	Tier 1	Tier 2	Tier 3
50	1.426%	1.092%	-
51	1.541	1.156	-
52	1.656	1.224	1.000%
53	1.770	1.296	1.100
54	1.885	1.376	1.200
55	2.000	1.460	1.300
56	2.117	1.552	1.400
57	2.233	1.650	1.500
58	2.350	1.758	1.600
59	2.466	1.874	1.700
60	2.583	2.000	1.800
61	2.699	2.134	1.900
62	2.816	2.272	2.000
63	2.932	2.418	2.100
64	3.049	2.458	2.200
65	3.165	2.500	2.300
66	3.165	2.500	2.400
67+	3.165	2.500	2.500

BRIEF SUMMARY OF BENEFIT PROVISIONS EVALUATED
EFFECTIVE JANUARY 1, 2016

- D. Maximum Benefit
- a. Tier 1
80% of Final Compensation for SLOCEA and Misc. Other.
90% of Final Compensation for Safety and Probation.
100% of Final Compensation for Miscellaneous Management.
 - b. Tier 2
90% of Final Compensation for all of Tier 2
 - c. Tier 3
No maximum benefit applies but pensionable compensation is capped at \$117,020 for 2016 and adjusted annually based on CPI.
6. Ordinary Disability
- A. Eligibility - Five years of service and less than 65 years old.
 - B. Benefit Formula - Greater of (1) 1.5% of Final Compensation times Credited Service, (2) 1/3 of Final Compensation if Credited Service is between 10 and 22.222 years, or (3) the earned Service Retirement Allowance (if eligible).
7. Line-of-Duty Disability
- A. Eligibility - No age or service requirement for Safety members.
 - B. Benefit Formula - Greater of (1) 50% of Final Compensation, or (2) Service Retirement Allowance (if eligible).
8. Ordinary Death Before Eligible for Retirement (Basic Death Benefit)
Refund of employee contributions with interest plus lump sum of one and one-half month's compensation for each year of service to a maximum of eighteen months' Compensation.
9. Ordinary Death After Eligible for Retirement
50% of earned benefit payable to surviving eligible spouse or children until age 18, or benefit in (8) above if greater. Spouse can elect an actuarially-reduced 100% Joint and Survivor benefit.
10. Line-of-Duty Death (Safety only)
50% of Final Compensation. Benefit increased to 62.5%, 70% or 75%, respectively, if violent death and 1, 2, or 3 children.
11. Death After Retirement
50% of member's unmodified allowance continued to eligible spouse. Optional forms of payment are also available.
\$1,000 payable in lump sum to the beneficiary or the estate of the retiree.

BRIEF SUMMARY OF BENEFIT PROVISIONS EVALUATED
EFFECTIVE JANUARY 1, 2016

12. Withdrawal Benefits

A. Less than Five Years of Service

Refund of accumulated employee contributions with interest.

B. Five or More Years of Service

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire.

13. Post-Retirement Cost-of-Living Benefits

Based on changes in Consumer Price Index to a maximum of 3% per year (maximum of 2% per year for Tier 2 and Tier 3).

14. Deferred Retirement Option Program (DROP): A Tier 1 member (excluding Court employees) may elect to participate in the Pension Trust's DROP. A member age 50 or more with 5 or more years of service may participate. An amount equal to the amount that would have been paid had the member retired, is deposited into a DROP account. The annual addition to the DROP account is increased each year by the Cost-of-Living Adjustment approved by the Board of Trustees not to exceed 3% per year. Deposits into the DROP account and participation in DROP cease at the earlier of 5 years of DROP participation or separation from service. Upon actual retirement the member may receive the DROP account balance in the form of a lump sum or as an annuity payment.

NOTE: The summary of major plan provisions is designed to outline principal plan benefits. If the County should find the plan summary not in accordance with the actual provisions, the County should alert the actuary **IMMEDIATELY** so proper provisions are valued.

SUMMARY OF REPORTED ASSET INFORMATION SUBMITTED FOR THE JANUARY 1, 2016 VALUATION

Market Value of Reported Assets as of January 1, 2016		Reserves as of January 1, 2016	
Cash/Short-term	\$36,730,164	Member Deposit Reserve	\$323,140,297
Receivables	21,320,898	Appropriation Reserves	106,343,272
Equities	518,178,759	Retired Members Reserve	779,037,833
Bonds	429,660,716	Cost-of-Living	349,297,611
Mortgages	5,000,946	Contingency Reserves	(556,958,430)
Alternative Investments	55,698,053	Market Value Adjustments	134,942,121
Real Estate	118,507,234		
Other	255,257		
	<u>\$1,185,352,027</u>		
Liabilities	<u>(49,549,323)</u>		
Total Market Value	\$1,135,802,704	Total Reserves	\$1,135,802,704

REVENUES AND DISBURSEMENTS

Total Reserves

Beginning of Year **\$ 1,173,336,062**

Revenues

Employer Contributions	\$ 33,618,330
Employee Contributions	24,586,735
Interest	5,764,598
Dividends	10,279,835
Real Estate Income	2,852,655
Realized and Unrealized Gains and Losses	(31,449,949)
Investment Expenses	(4,152,991)

Total Revenues **\$ 41,499,213**

Disbursements

Benefit Payments	\$ 72,441,811
Refunds of Member Contributions	1,613,271
Death Benefits	999,184
Administration	3,978,305

Total Disbursements **\$ 79,032,571**

Net Increase \$ (37,533,358)

Total Reserves - End of year **\$ 1,135,802,704**

San Luis Obispo County Pension Trust
Development of Funding Value of Assets - January 1, 2016

	<u>Plan Year Ended December 31, 2011</u>	<u>Plan Year Ended December 31, 2012</u>	<u>Plan Year Ended December 31, 2013</u>	<u>Plan Year Ended December 31, 2014</u>	<u>Plan Year Ended December 31, 2015</u>
A. Funding Value Beginning of Year	\$1,000,168,850	\$1,057,921,875	\$1,122,150,539	\$1,182,923,978	\$1,231,473,577
B. Gross Market Value End of Year	906,350,380	1,013,436,059	1,135,718,617	1,173,336,063	1,135,802,704
C. Gross Market Value Beginning of Year	880,953,414	906,350,380	1,013,436,059	1,135,718,617	1,173,336,063
D. Non-Investment Cash Flow	1,284,151	(1,761,812)	(9,565,801)	(14,055,197)	(20,827,506)
E. Investment Income					
E1. Market Total =B-C-D	24,112,815	108,847,491	131,848,359	51,672,643	(16,705,853)
E2 Immediate Recognition	<u>77,562,847</u>	<u>76,635,470</u>	<u>81,009,154</u>	<u>85,252,488</u>	<u>88,526,837</u>
E3. Phased-in Recognition	(53,450,032)	32,212,021	50,839,205	(33,579,845)	(105,232,690)
F. Phased-in Recognition					
F1. Current Year=E3x20%*	(10,690,006)	6,442,404	10,167,841	(6,715,969)	(21,046,538)
F2. First Prior Year	7,437,258	(10,690,006)	6,442,404	10,167,841	(6,715,969)
F3. Second Prior Year	15,245,328	7,437,258	(10,690,006)	6,442,404	10,167,841
F4. Third Prior Year	(29,936,396)	15,245,328	7,437,258	(10,690,006)	6,442,404
F5. Fourth Prior Year	(4,246,161)	(29,936,396)	15,245,328	7,437,258	(10,690,006)
F6. Continued Recognition of 2008 Asset Loss	0	0	(29,936,396)	(29,936,396)	(29,936,396)
F7. Additional Recognition of 2008 Asset Loss	<u>0</u>	<u>0</u>	<u>(10,000,000)</u> *	<u>0</u>	<u>0</u>
F8. Total Recognized Gain/(Loss)	(22,189,977)	(11,501,412)	(11,333,571)	(23,294,868)	(51,778,664)
G. Preliminary Funding Value					
=A+D+E2+F8	\$1,056,825,871	\$1,121,294,121	\$1,182,260,321	\$1,230,826,401	\$1,247,394,244
H. Excludable Assets					
H1. End of Year	7,462,567	6,606,149	5,942,492	5,295,316	4,362,000
H2. Beginning of Year	8,558,571	7,462,567	6,606,149	5,942,492	5,295,316
H3. Change=H1-H2	(1,096,004)	(856,418)	(663,657)	(647,176)	(933,316)
I. Final Funding Value=G-H3	\$1,057,921,875	\$1,122,150,539	\$1,182,923,978	\$1,231,473,577	\$1,248,327,560
J. Investment Return=(E2+F8)/(A+D/2)	5.53%	6.16%	6.24%	5.27%	3.01%

*The Board originally decided to recognize the 2008 asset loss over 10 years with acceleration of the recognition in future years when the funding margin allowed it. The Board elected to accelerate recognition of \$10 million of the 2008 loss base for the year ending December 31, 2010 and an additional \$10 million for the year ending December 31, 2013.

Allocation of Valuation Assets
January 1, 2016 Valuation

	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand Total</u>
1) Valuation Assets as of December 31, 2014	\$958,970,908	\$48,949,411	\$223,553,258	\$1,231,473,577
2) Preliminary member contributions including pickups by group	\$19,399,778	\$1,234,900	\$3,817,536	\$24,452,214
3) Member contributions from financials, subgroups split in proportion to (2)	\$19,506,504	\$1,241,694	\$3,838,537	\$24,586,735
4) Preliminary employer contributions by group	\$26,275,279	\$1,180,087	\$5,946,176	\$33,401,542
5) Employer contributions from financials, subgroups split in proportion to (4)	\$26,445,815	\$1,187,746	\$5,984,769	\$33,618,330
6) Benefit Payments based on data - avg LY & TY	\$56,639,562	\$2,578,793	\$12,747,700	\$71,966,055
7) Benefit payments from financials, subgroups split in proportion to (6)	\$59,070,082	\$2,689,454	\$13,294,730	\$75,054,266
8) Subtotal = (1) + (3) + (5) - (7)	\$945,853,145	\$48,689,397	\$220,081,834	\$1,214,624,376
9) Valuation Assets as of December 31, 2015				1,248,327,560
10) Residual to allocate among groups (9) - (8)				33,703,184
11) Allocation of residual to equalize funded ratios	23,979,952	1,497,017	8,226,215	33,703,184
12) Valuation Assets Allocated by group: (8) + (11)	\$969,833,097	\$50,186,414	\$228,308,049	\$1,248,327,560

SECTION F

SUMMARY OF MEMBER DATA

RECONCILIATION OF MEMBERS FROM JANUARY 1, 2015 TO JANUARY 1, 2016

	Actives	Disability	Terminated Vested	Retiree	DROP	Beneficiary	Total
Counts as of January 1, 2015	2,550	139	451	2,013	57	192	5,402
Actives	6		(6)				0
Disability	(1)	2		(1)			0
Terminated Vested	(33)		33				0
Terminated Nonvested	(84)						(84)
Retiree	(93)	(2)	(29)	144	(20)		0
DROP	(27)				27		0
Beneficiary							0
Deceased	(2)	(4)	(3)	(39)		(9)	(57)
Refund			(5)				(5)
New Beneficiaries						15	15
New Actives	288						288
Return to Work	5		5				10
Missing							0
Not included last year			4	3			7
Counts as of January 1, 2016	2,609	135	450	2,120	64	198	5,576

SUMMARY OF ACTIVE MEMBERS INCLUDED IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

		<div>Averages</div>			
	<u>No.</u>	<u>Total Payroll</u>	<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
Miscellaneous Members					
1/1/2016	2,225	\$144,899,376	\$65,123	47.0	9.9
1/1/2015	2,179	\$137,128,998	\$62,932	47.5	10.3
Percent Increase	2.1%	5.7%	3.5%		
Probation Members					
1/1/2016	110	\$7,705,651	\$70,051	39.3	9.5
1/1/2015	104	\$7,216,206	\$69,387	40.0	10.1
Percent Increase	5.8%	6.8%	1.0%		
Safety Members					
1/1/2016	274	\$24,398,860	\$89,047	41.4	11.9
1/1/2015	267	\$23,350,228	\$87,454	41.4	11.9
Percent Increase	2.6%	4.5%	1.8%		
All Active Members					
1/1/2016	2,609	\$177,003,887	\$67,844	46.1	10.1
1/1/2015	2,550	\$167,695,432	\$65,763	46.6	10.4
Percent Increase	2.3%	5.6%	3.2%		

For affected Management employees, pick ups are not included as valuation compensation in these figures, even though such pick ups are used to determine their benefits.

Payroll represents the total pay of all covered members. Payroll changes year by year based on new hires, departures, and pay for continuing actives. The assumption for payroll growth is used in amortizing the UAL.

Salaries represent the pay earned by an individual member in the system. The salary growth assumption is an assumption for an individual member's increase in salary.

Pensionable compensation is capped at \$117,020 for 2016 for Tier 3 members.

SUMMARY OF ACTIVE MEMBERS BY VALUATION GROUP IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

	Counts				Total Payroll (000s*)			
	Tier 1	Tier 2	Tier 3	Total	Tier 1	Tier 2	Tier 3	Total
Miscellaneous Members								
1/1/2016	1,429	261	535	2,225	\$ 101,399	\$ 16,913	\$ 26,587	\$ 144,899
1/1/2015	1,567	258	354	2,179	\$ 105,855	\$ 15,135	\$ 16,139	\$ 137,129
Percent Increase				2.1%				5.7%
Probation Members								
1/1/2016	87	0	23	110	\$ 6,519	\$ -	\$ 1,187	\$ 7,706
1/1/2015	91	0	13	104	\$ 6,565	\$ -	\$ 651	\$ 7,216
Percent Increase				5.8%				6.8%
Safety Members								
1/1/2016	192	48	34	274	\$ 17,867	\$ 4,033	\$ 2,498	\$ 24,399
1/1/2015	203	44	20	267	\$ 18,362	\$ 3,539	\$ 1,450	\$ 23,350
Percent Increase				2.6%				4.5%

* Total may not add due to rounding.

SUMMARY OF ACTIVE MEMBERS BY VALUATION GROUP
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

		Averages			
	<u>No.</u>	<u>Total Payroll</u>	<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
Miscellaneous Members					
1 Other - Units # 14, 21, 22					
1/1/2016	27	\$2,012,462	\$74,536	44.2	9.1
1/1/2015	27	\$2,010,674	\$74,469	44.2	9.0
2 Management Non-Court - Units # 4, 7, 8, 9, 10, 11, 12, 17, 99					
1/1/2016	424	\$39,900,851	\$94,106	48.8	12.1
1/1/2015	410	\$37,822,731	\$92,251	49.2	12.6
3 Management Court - Unit # 18					
1/1/2016	11	\$903,094	\$82,099	49.4	9.6
1/1/2015	10	\$823,035	\$82,304	49.6	9.5
4 Management Court - Units # 24, 25, 26, 27					
1/1/2016	28	\$2,922,670	\$104,381	53.6	14.6
1/1/2015	28	\$2,822,893	\$100,818	52.6	13.6
5 SLOCEA Non-Court - Units # 1, 2, 5, 13, 31, 98					
1/1/2016	1,648	\$94,593,387	\$57,399	46.4	9.2
1/1/2015	1,622	\$89,366,040	\$55,096	47.0	9.6
6 SLOCEA Court - Unit # 19					
1/1/2016	10	\$665,288	\$66,529	52.3	18.1
1/1/2015	10	\$660,962	\$66,096	51.3	15.6
7 SLOCEA Court - Unit # 20					
1/1/2016	77	\$3,901,622	\$50,670	46.1	10.4
1/1/2015	72	\$3,622,663	\$50,315	46.4	11.0

SUMMARY OF ACTIVE MEMBERS BY VALUATION GROUP
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

		Total Payroll	Averages		
	<u>No.</u>		<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
Probation Members					
8 Probation Management - Units # 8, 9					
1/1/2016	6	\$718,848	\$119,808	50.1	21.3
1/1/2015	5	\$609,856	\$121,971	51.3	22.7
9 Probation Non-Management - Units # 31, 32					
1/1/2016	104	\$6,986,803	\$67,181	38.7	8.8
1/1/2015	99	\$6,606,350	\$66,731	39.4	9.5
Safety Members					
10 Safety Management - Units # 7, 10, 15, 16					
1/1/2016	11	\$1,569,446	\$142,677	51.3	18.6
1/1/2015	9	\$1,256,218	\$139,580	51.4	16.9
11 Safety Non-Management - Units # 3, 6, 14, 27, 28					
1/1/2016	263	\$22,829,414	\$86,804	41.0	11.6
1/1/2015	258	\$22,094,010	\$85,636	41.1	11.7

SUMMARY OF DEFERRED AND RECIPROCAL MEMBERS INCLUDED IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

				Averages		
	No.	Member Contributions	Contribution Balance	Attained Age	Age at Termination	Service
Miscellaneous						
Reciprocals	184	\$10,022,868	\$54,472	50.0	39.7	4.8
Deferred	<u>209</u>	<u>17,447,795</u>	83,482	51.0	40.6	9.0
Total	393	\$27,470,663	\$69,900	50.5	40.2	7
Probation						
Reciprocals	6	\$250,405	\$41,734	43.1	33.0	4.3
Deferred	<u>9</u>	<u>798,507</u>	88,723	41.8	36.2	8.5
Total	15	\$1,048,912	\$69,927	42.3	34.9	6.8
Safety						
Reciprocals	14	\$908,732	\$64,909	46.0	33.5	4.4
Deferred	<u>28</u>	<u>2,828,589</u>	101,021	43.7	36.2	8.1
Total	42	\$3,737,321	\$88,984	44.4	35.3	6.8
Total						
Reciprocals						
1/1/2016	204	\$11,182,005	\$54,814	49.5	39.1	4.8
1/1/2015	204	\$10,681,994	\$52,363	50.2	39.4	4.8
Percent Change	0.0%	4.7%	4.7%			
Deferred						
1/1/2016	246	\$21,074,891	\$85,670	49.8	39.9	8.8
1/1/2015	247	\$19,836,220	\$80,309	49.9	40.1	8.8
Percent Change	-0.4%	6.2%	6.7%			
Grand Total 1/1/2016	450	\$32,256,896	\$71,682	49.7	39.5	7.0
Grand Total 1/1/2015	451	\$30,518,214	\$67,668	50.0	39.8	7.0
Percent Change	-0.2%	5.7%	5.9%			

SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES INCLUDED
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

MISCELLANEOUS

	<u>No.</u>	<u>Averages</u>				<u>New Retirees Only</u>		
		<u>Annual</u>	<u>Annual</u>	<u>Attained</u>	<u>Age at</u>	<u>Average</u>	<u>Average</u>	
		<u>Allowance</u>	<u>Allowance</u>	<u>Age</u>	<u>Retirement*</u>	<u>Annual</u>	<u>Age at</u>	
Retired Members						<u>No.</u>	<u>Allowance</u>	<u>Retirement</u>
1/1/2016	2,007	\$55,932,214	\$27,869	68.9	59.0	140	\$34,140	61.2
1/1/2015	1,909	\$51,207,238	\$26,824	68.6	58.9	150	\$32,118	60.5
Percent Change	5.1%	9.2%	3.9%				6.3%	
Beneficiaries								
1/1/2016	171	\$3,162,337	\$18,493	75.7	N/A	N/A	N/A	N/A
1/1/2015	165	\$2,977,335	\$18,044	75.4	N/A	N/A	N/A	N/A
Percent Change	3.6%	6.2%	2.5%					
Total 1/1/2016	2,178	\$59,094,551	\$27,132	69.4	59.0	140	\$34,140	61.2
Total 1/1/2015	2,074	\$54,184,573	\$26,126	69.1	58.9	150	\$32,118	60.5
Percent Change	5.0%	9.1%	3.9%				6.3%	

* For retired and disabled members only; does not include beneficiaries.

SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES INCLUDED
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

PROBATION

		<u>Averages</u>				<u>New Retirees Only</u>		
		<u>No.</u>	<u>Annual Allowance</u>	<u>Annual Allowance</u>	<u>Attained Age</u>	<u>Age at Retirement*</u>	<u>No.</u>	<u>Average Annual Allowance</u>
Retired Members								
1/1/2016	65	\$2,595,554	\$39,932	63.3	56.1	5	\$57,500	53.7
1/1/2015	62	\$2,329,180	\$37,567	63.3	56.3	11	\$36,362	57.8
Percent Change	4.8%	11.4%	6.3%				58.1%	
Beneficiaries								
1/1/2016	4	\$117,522	\$29,381	72.8	N/A	N/A	N/A	N/A
1/1/2015	4	\$115,330	\$28,833	71.8	N/A	N/A	N/A	N/A
Percent Change	0.0%	1.9%	1.9%					
Total 1/1/2016	69	\$2,713,076	\$39,320	63.9	56.1	5	\$57,500	53.7
Total 1/1/2015	66	\$2,444,510	\$37,038	63.8	56.3	11	\$36,362	57.8
Percent Change	4.5%	11.0%	6.2%				58.1%	

* For retired and disabled members only; does not include beneficiaries.

SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES INCLUDED
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

SAFETY

		Averages				New Retirees Only		
		No.	Annual Allowance	Annual Allowance	Attained Age	Age at Retirement*	No.	Average Annual Allowance
Retired Members								
1/1/2016	247	\$12,422,986	\$50,295	63.5	52.5	11	\$46,141	49.0
1/1/2015	238	\$11,817,557	\$49,654	63.0	52.5	27	\$55,434	51.4
Percent Change	3.8%	5.1%	1.3%				-16.8%	
Beneficiaries								
1/1/2016	23	\$633,773	\$27,555	72.6	N/A	N/A	N/A	N/A
1/1/2015	23	\$621,083	\$27,004	71.6	N/A	N/A	N/A	N/A
Percent Change	0.0%	2.0%	2.0%					
Total 1/1/2016	270	\$13,056,759	\$48,358	64.3	52.5	11	\$46,141	49.0
Total 1/1/2015	261	\$12,438,640	\$47,658	63.8	52.5	27	\$55,434	51.4
Percent Change	3.4%	5.0%	1.5%				-16.8%	

* For retired and disabled members only; does not include beneficiaries.

SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES INCLUDED
IN THE JANUARY 1, 2016 ACTUARIAL VALUATION

TOTAL

			Averages			New Retirees Only		
			Annual	Annual	Attained	Age at	Average	Average
	No.	Annual Allowance	Allowance	Age	Retirement*	No.	Annual Allowance	Age at Retirement
Retired Members								
1/1/2016	2,319	\$70,950,754	\$30,595	68.2	58.2	156	\$35,735	60.1
1/1/2015	2,209	\$65,353,975	\$29,585	67.8	58.1	188	\$35,715	59.0
Percent Change	5.0%	8.6%	3.4%				0.1%	
Beneficiaries								
1/1/2016	198	\$3,913,632	\$19,766	75.3	N/A	N/A	N/A	N/A
1/1/2015	192	\$3,713,748	\$19,342	74.9	N/A	N/A	N/A	N/A
Percent Change	3.1%	5.4%	2.2%					
Total 1/1/2016	2,517	\$74,864,386	\$29,743	68.8	58.2	156	\$35,735	60.1
Total 1/1/2015	2,401	\$69,067,723	\$28,766	68.4	58.1	188	\$35,715	59.0
Percent Change	4.8%	8.4%	3.4%				0.1%	

* For retired and disabled members only; does not include beneficiaries.

SECTION G

ACTIVE DATA TABLES

**ACTIVE MEMBERS JANUARY 1, 2016
BY ATTAINED AGES AND YEARS OF SERVICE**

MISCELLANEOUS MEMBERS

<u>Age Group</u>	<u>Years of Accrued Service</u>							<u>Compensation</u>	
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>No.</u>	<u>Totals</u>
20-24	29	0	0	0	0	0	0	29	\$1,134,453
25-29	133	12	1	0	0	0	0	146	7,097,813
30-34	167	64	17	0	0	0	0	248	13,950,331
35-39	134	90	51	11	0	0	0	286	18,218,535
40-44	83	53	54	27	5	0	0	222	14,639,966
45-49	77	61	66	71	15	10	1	301	20,760,615
50-54	54	49	79	67	31	35	15	330	22,922,000
55-59	73	57	73	60	45	51	19	378	26,473,294
60-64	27	38	52	41	17	31	11	217	14,691,816
65-69	9	8	14	11	6	7	2	57	4,362,779
70-74	0	5	2	3	0	0	1	11	647,774
75+	0	0	0	0	0	0	0	0	0
Totals	786	437	409	291	119	134	49	2,225	\$144,899,376

While not used in the financial computations, the following averages are computed and shown for their general interest.

Averages

Age: 47.0
 Service: 9.9
 Compensation: \$65,123

ACTIVE MEMBERS JANUARY 1, 2016
BY ATTAINED AGES AND YEARS OF SERVICE

PROBATION MEMBERS

Age Group	Years of Accrued Service							Compensation	
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>No.</u>	<u>Totals</u>
20-24	1	0	0	0	0	0	0	1	\$49,005
25-29	18	2	0	0	0	0	0	20	1,119,165
30-34	8	11	2	0	0	0	0	21	1,302,870
35-39	5	5	12	0	0	0	0	22	1,597,981
40-44	3	2	4	3	0	0	0	12	874,016
45-49	3	2	2	8	1	0	0	16	1,268,904
50-54	0	0	1	7	3	3	0	14	1,224,080
55-59	1	0	0	1	0	1	0	3	207,168
60-64	0	0	1	0	0	0	0	1	62,462
65-69	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0
Totals	39	22	22	19	4	4	0	110	\$7,705,651

While not used in the financial computations, the following averages are computed and shown for their general interest.

Averages

Age: 39.3
Service: 9.5
Compensation: \$70,051

**ACTIVE MEMBERS JANUARY 1, 2016
BY ATTAINED AGES AND YEARS OF SERVICE**

SAFETY MEMBERS

<u>Age Group</u>	<u>Years of Accrued Service</u>							<u>Compensation</u>	
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>No.</u>	<u>Totals</u>
20-24	7	0	0	0	0	0	0	7	\$475,571
25-29	24	3	0	0	0	0	0	27	2,108,371
30-34	23	15	5	0	0	0	0	43	3,575,707
35-39	13	11	18	5	0	0	0	47	4,079,504
40-44	8	7	8	12	4	0	0	39	3,518,279
45-49	2	7	6	12	20	10	0	57	5,360,888
50-54	5	1	2	8	10	13	1	40	3,976,211
55-59	0	1	1	6	1	3	0	12	1,085,344
60-64	1	0	0	0	1	0	0	2	218,985
65-69	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0
Totals	83	45	40	43	36	26	1	274	\$24,398,860

While not used in the financial computations, the following averages are computed and shown for their general interest.

Averages

Age: 41.4
 Service: 11.9
 Compensation: \$89,047

**ACTIVE MEMBERS JANUARY 1, 2016
BY ATTAINED AGES AND YEARS OF SERVICE**

TOTAL MEMBERS

<u>Age Group</u>	<u>Years of Accrued Service</u>							<u>Compensation</u>	
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>No.</u>	<u>Totals</u>
20-24	37	0	0	0	0	0	0	37	\$1,659,029
25-29	175	17	1	0	0	0	0	193	10,325,349
30-34	198	90	24	0	0	0	0	312	18,828,908
35-39	152	106	81	16	0	0	0	355	23,896,020
40-44	94	62	66	42	9	0	0	273	19,032,261
45-49	82	70	74	91	36	20	1	374	27,390,407
50-54	59	50	82	82	44	51	16	384	28,122,291
55-59	74	58	74	67	46	55	19	393	27,765,806
60-64	28	38	53	41	18	31	11	220	14,973,263
65-69	9	8	14	11	6	7	2	57	4,362,779
70-74	0	5	2	3	0	0	1	11	647,774
75+	0	0	0	0	0	0	0	0	0
Totals	908	504	471	353	159	164	50	2,609	\$177,003,887

While not used in the financial computations, the following averages are computed and shown for their general interest.

Averages

Age: 46.1
 Service: 10.1
 Compensation: \$67,844

AVERAGE PAY BY YEARS OF SERVICE

MISCELLANEOUS MEMBERS

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	48	97	145	\$7,157,490	\$49,362
1	77	161	238	12,703,126	53,374
2	50	141	191	10,239,611	53,611
3	20	90	110	6,478,662	58,897
4	38	64	102	6,339,008	62,147
5	15	57	72	4,606,326	63,977
6	15	31	46	3,153,322	68,550
7	29	62	91	6,472,378	71,125
8	33	76	109	7,399,886	67,889
9	28	91	119	7,871,963	66,151
10	42	74	116	8,043,355	69,339
11	23	43	66	4,318,912	65,438
12	29	40	69	5,020,818	72,765
13	19	31	50	3,711,375	74,228
14	39	69	108	7,578,282	70,169
15 & Up	215	378	593	43,804,861	73,870
Totals	720	1,505	2,225	\$144,899,376	\$65,123

AVERAGE PAY BY YEARS OF SERVICE

PROBATION MEMBERS

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	1	3	4	\$207,397	\$51,849
1	6	5	11	552,552	50,232
2	4	5	9	492,606	54,734
3	4	5	9	545,251	60,583
4	2	4	6	403,146	67,191
5	2	0	2	132,517	66,259
6	1	2	3	201,947	67,316
7	2	2	4	263,952	65,988
8	5	4	9	607,776	67,531
9	3	1	4	270,858	67,715
10	3	1	4	280,675	70,169
11	3	1	4	291,762	72,941
12	0	2	2	160,493	80,247
13	4	3	7	561,226	80,175
14	1	4	5	396,677	79,335
15 & Up	16	11	27	2,336,816	86,549
Totals	57	53	110	\$7,705,651	\$70,051

AVERAGE PAY BY YEARS OF SERVICE

SAFETY MEMBERS

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	5	2	7	\$496,850	\$70,979
1	19	2	21	1,593,199	75,867
2	18	3	21	1,659,902	79,043
3	11	4	15	1,261,083	84,072
4	13	6	19	1,653,621	87,033
5	2	0	2	286,645	143,323
6	2	1	3	237,182	79,061
7	6	1	7	574,995	82,142
8	19	1	20	1,804,379	90,219
9	12	1	13	1,114,318	85,717
10	6	3	9	834,475	92,719
11	8	0	8	692,640	86,580
12	6	0	6	524,950	87,492
13	8	0	8	726,502	90,813
14	7	2	9	827,736	91,971
15 & Up	90	16	106	10,110,383	95,381
Totals	232	42	274	\$24,398,860	\$89,047

AVERAGE PAY BY YEARS OF SERVICE

TOTAL MEMBERS

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	54	102	156	\$7,861,737	\$50,396
1	102	168	270	14,848,878	54,996
2	72	149	221	12,392,120	56,073
3	35	99	134	8,284,996	61,828
4	53	74	127	8,395,774	66,108
5	19	57	76	5,025,488	66,125
6	18	34	52	3,592,451	69,086
7	37	65	102	7,311,325	71,680
8	57	81	138	9,812,041	71,102
9	43	93	136	9,257,139	68,067
10	51	78	129	9,158,505	70,996
11	34	44	78	5,303,314	67,991
12	35	42	77	5,706,262	74,107
13	31	34	65	4,999,103	76,909
14	47	75	122	8,802,695	72,153
15 & Up	321	405	726	56,252,060	77,482
Totals	1,009	1,600	2,609	\$177,003,887	\$67,844

SECTION H

RETIREE DATA TABLES

RETIREES AND BENEFICIARIES JANUARY 1, 2016
MISCELLANEOUS
TABULATED BY TYPE OF ALLOWANCES BEING PAID

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowances</u>
SERVICE RETIREMENT		
Unmodified	874	\$23,467,729
Cash Refund	138	3,302,862
100% Continuance	499	16,118,663
50% Continuance	187	7,075,307
Benefits Coordinated with Social Security		
Unmodified	128	\$2,278,052
Cash Refund	26	390,974
100% Continuance	43	1,218,890
50% Continuance	23	652,395
Total Service Retirement	1,918	\$54,504,872
DISABILITY RETIREMENT		
Unmodified	47	\$790,992
Cash Refund	14	185,930
100% Continuance	21	344,803
50% Continuance	7	105,617
Total Disability Retirement	89	\$1,427,342
BENEFICIARIES	171	\$3,162,337
Total Allowances	2,178	\$59,094,551

RETIREES AND BENEFICIARIES JANUARY 1, 2016
PROBATION
TABULATED BY TYPE OF ALLOWANCES BEING PAID

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowances</u>
SERVICE RETIREMENT		
Unmodified	20	\$664,913
Cash Refund	8	209,262
100% Continuance	21	1,047,477
50% Continuance	5	330,411
Benefits Coordinated with Social Security		
Unmodified	3	\$87,305
100% Continuance	1	34,632
50% Continuance	3	103,036
Total Service Retirement	61	\$2,477,036
DISABILITY RETIREMENT		
Unmodified	4	\$118,518
BENEFICIARIES	4	\$117,522
Total Allowances	69	\$2,713,076

RETIREES AND BENEFICIARIES JANUARY 1, 2016
SAFETY
TABULATED BY TYPE OF ALLOWANCES BEING PAID

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowances</u>
SERVICE RETIREMENT		
Unmodified	52	\$2,680,285
Cash Refund	11	662,244
100% Continuance	78	4,291,961
50% Continuance	28	1,613,755
Benefits Coordinated with Social Security		
Unmodified	11	\$471,861
Cash Refund	1	35,329
100% Continuance	14	640,317
50% Continuance	10	451,723
Total Service Retirement	205	\$10,847,474
DISABILITY RETIREMENT		
Unmodified	24	\$948,821
Cash Refund	2	75,332
100% Continuance	14	475,206
50% Continuance	2	76,154
Total Disability Retirement	42	\$1,575,512
BENEFICIARIES	23	\$633,773
Total Allowances	270	\$13,056,759

RETIREES AND BENEFICIARIES JANUARY 1, 2016
TOTAL
TABULATED BY TYPE OF ALLOWANCES BEING PAID

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowances</u>
SERVICE RETIREMENT		
Unmodified	946	\$26,812,927
Cash Refund	157	4,174,368
100% Continuance	598	21,458,101
50% Continuance	220	9,019,472
Benefits Coordinated with Social Security		
Unmodified	142	\$2,837,219
Cash Refund	27	426,303
100% Continuance	58	1,893,839
50% Continuance	<u>36</u>	<u>1,207,153</u>
Total Service Retirement	2,184	\$67,829,382
DISABILITY RETIREMENT		
Unmodified	75	\$1,858,331
Cash Refund	16	261,262
100% Continuance	35	820,009
50% Continuance	<u>9</u>	<u>181,771</u>
Total Disability Retirement	135	\$3,121,372
BENEFICIARIES	<u>198</u>	<u>\$3,913,632</u>
Total Allowances	<u>2,517</u>	<u>\$74,864,386</u>

RETIREES AND BENEFICIARIES JANUARY 1, 2016
TABULATED BY ATTAINED AGES AND YEAR OF RETIREMENT

MISCELLANEOUS

<u>Year Retired</u>	<u>Age Groups</u>								<u>Totals</u>
	<u>0-49</u>	<u>50-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>	<u>80-89</u>	<u>90+</u>	
Pre 1996	1	2	4	9	21	28	146	55	266
1996	0	1	0	2	9	7	15	2	36
1997	0	1	2	6	6	5	21	2	43
1998	0	3	1	15	9	19	12	1	60
1999	0	2	1	4	16	13	11	1	48
2000	0	1	1	12	9	8	5	1	37
2001	0	2	10	26	20	32	6	1	97
2002	1	5	12	16	19	15	3	0	71
2003	0	1	15	25	22	14	4	0	81
2004	2	6	26	36	29	12	5	2	118
2005	1	4	18	41	44	17	2	1	128
2006	1	16	31	41	28	8	0	1	126
2007	0	13	28	38	27	0	3	0	109
2008	0	15	15	40	20	2	3	0	95
2009	0	11	35	66	34	5	1	1	153
2010	2	16	29	27	12	4	0	0	90
2011	0	19	40	39	6	0	0	0	104
2012	3	27	29	44	10	2	0	0	115
2013	3	43	44	40	5	0	1	0	136
2014	1	42	52	43	4	0	1	0	143
2015	0	35	60	25	2	0	0	0	122
TOTALS	15	265	453	595	352	191	239	68	2,178

Age at Retirement¹: 59.0

Attained Age: 69.4

Average Annual Pension: \$27,132

¹ For retired and disabled members only; does not include beneficiaries.

RETIREES AND BENEFICIARIES JANUARY 1, 2016
TABULATED BY ATTAINED AGES AND YEAR OF RETIREMENT

PROBATION

<u>Year Retired</u>	<u>Age Groups</u>								<u>Totals</u>
	<u>0-49</u>	<u>50-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>	<u>80-89</u>	<u>90+</u>	
Pre 2006	0	1	1	7	8	3	1	0	21
2006	0	0	1	2	0	0	0	0	3
2007	0	1	2	3	1	0	0	0	7
2008	0	1	2	0	1	0	0	0	4
2009	0	2	2	1	0	0	0	0	5
2010	1	1	1	0	0	0	0	0	3
2011	0	2	1	0	1	0	0	0	4
2012	0	1	1	3	0	0	0	0	5
2013	0	1	1	0	0	0	0	0	2
2014	0	6	3	2	0	0	0	0	11
2015	0	4	0	0	0	0	0	0	4
TOTALS	1	20	15	18	11	3	1	0	69

Age at Retirement¹: 56.1
 Attained Age: 63.9
 Average Annual Pension: \$39,320

¹ For retired and disabled members only; does not include beneficiaries.

RETIREES AND BENEFICIARIES JANUARY 1, 2016
TABULATED BY ATTAINED AGES AND YEAR OF RETIREMENT

SAFETY

Year Retired	Age Groups								Totals
	0-49	50-59	60-64	65-69	70-74	75-79	80-89	90+	
Pre 1996	0	8	1	5	13	12	15	0	54
1996	0	0	0	0	4	2	1	0	7
1997	1	0	0	0	2	0	2	0	5
1998	0	1	0	2	2	1	1	0	7
1999	0	0	0	1	0	0	1	0	2
2000	0	0	0	0	3	1	1	0	5
2001	0	1	1	4	0	0	0	0	6
2002	0	0	1	3	1	1	0	0	6
2003	1	1	2	5	1	1	0	0	11
2004	2	0	2	4	1	2	0	0	11
2005	0	0	4	10	4	0	0	0	18
2006	0	1	2	1	1	0	0	0	5
2007	0	8	9	3	1	0	0	0	21
2008	1	2	4	2	0	0	0	0	9
2009	1	8	3	0	0	0	0	0	12
2010	0	8	4	0	0	0	0	0	12
2011	0	9	6	2	0	0	0	0	17
2012	0	10	5	1	0	0	0	0	16
2013	0	10	2	1	0	0	0	0	13
2014	1	21	2	0	0	0	0	0	24
2015	2	7	0	0	0	0	0	0	9
TOTALS	9	95	48	44	33	20	21	0	270

Age at Retirement¹: 52.5

Attained Age: 64.3

Average Annual Pension \$48,358

¹ For retired and disabled members only; does not include beneficiaries.

RETIREEES AND BENEFICIARIES JANUARY 1, 2016 TABULATED BY ATTAINED AGES AND YEAR OF RETIREMENT

TOTAL

Year Retired	Age Groups								Totals
	0-49	50-59	60-64	65-69	70-74	75-79	80-89	90+	
Pre 1996	1	10	5	14	37	41	162	55	325
1996	0	1	0	2	13	9	16	2	43
1997	1	1	2	6	8	5	23	2	48
1998	0	4	1	17	11	20	13	1	67
1999	0	2	1	5	16	13	12	1	50
2000	0	1	1	12	12	9	6	1	42
2001	0	3	11	30	20	33	6	1	104
2002	1	5	13	20	23	16	3	0	81
2003	1	3	17	33	23	15	4	0	96
2004	4	6	29	41	31	14	5	2	132
2005	1	4	22	53	49	18	2	1	150
2006	1	17	34	44	29	8	0	1	134
2007	0	22	39	44	29	0	3	0	137
2008	1	18	21	42	21	2	3	0	108
2009	1	21	40	67	34	5	1	1	170
2010	3	25	34	27	12	4	0	0	105
2011	0	30	47	41	7	0	0	0	125
2012	3	38	35	48	10	2	0	0	136
2013	3	54	47	41	5	0	1	0	151
2014	2	69	57	45	4	0	1	0	178
2015	2	46	60	25	2	0	0	0	135
TOTALS	25	380	516	657	396	214	261	68	2,517

Age at Retirement¹: 58.2

Attained Age: 68.8

Average Annual Pension: \$29,743

¹ For retired and disabled members only; does not include beneficiaries.

SECTION I

VALUATION METHODS AND ASSUMPTIONS

ACTUARIAL METHODS AND ASSUMPTIONS USED FOR THE JANUARY 1, 2016 VALUATION

I. Valuation Date

The valuation date is December 31st of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- (i) the annual normal costs for each active member, payable from the date of entry into the system to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Deferred and Reciprocal Member Actuarial Accrued Liability. Data provided includes date of birth, service credit, reciprocal status, and hourly pay rates at termination. The estimated benefit was used to compute the liabilities for reserve members. For reciprocal members, the estimated benefits were projected with 3.25% inflation from their date of termination to their assumed retirement date to compute those liabilities.

Amortization of Unfunded Actuarial Accrued Liabilities is done as a level percent of payroll over a closed 30 year period (24 years as of January 1, 2016) for funding computations.

III. Actuarial Value of Assets

The funding value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. The asset losses that occurred in 2008 are smoothed over a ten year period with recognition accelerated if a positive contribution margin develops. Expected investment income is determined using the assumed investment return rate and the actuarial value of assets (adjusted for receipts and disbursements during the year). Returns are measured net of all administrative expenses.

IV. Actuarial Assumptions (changes effective January 1, 2016, based on the December 31, 2015 experience study)

A. Economic Assumptions

1. Investment return: 7.125%, compounded annually, net of administrative expenses. This is made up of a 2.625% inflation rate and a 4.50% real rate of return.
2. Salary increase rate: Inflation rate of 2.625% plus productivity increase rate of 0.25% plus an additional service-related merit component as shown below:

% Merit Increases in Salaries Next Year		% Total Increases in Salaries Next Year	
Service Index	Rate	Service Index	Rate
1	5.25%	1	8.13%
2	5.00%	2	7.88%
3	4.00%	3	6.88%
4	3.00%	4	5.88%
5	2.00%	5	4.88%
6	1.00%	6	3.88%
7	0.50%	7	3.38%
8 +	0.00%	8 +	2.88%

3. Cost-of-living increases:

Assumed to increase the full 2.625% each year (2% for Tier 2 and Tier 3).

4. Payroll growth:

3.375% per year (Inflation 2.625%, productivity of 0.25%, geographic differential of 0.50%)

5. Increase to maximum earnings limit for Tier 3 members:

2.625% per year

6. Contribution accumulation: Contributions are credited with 6.75% interest, compounded biweekly.

B. Demographic Assumptions

1. Mortality projection – The projection calculation for MP-2015 have an additional multiplier applied to future years for all of the mortality tables:

Year	Multiplier
2017	90%
2018	85%
2019	80%
2020	75%
2021	75%
2022	70%
2023	70%
2024	65%
2025	60%
2026	55%
2027+	50%

2. Mortality after termination or retirement -

- a. Healthy males – RP-2014 with generational mortality improvements using scale MP-2015, a 105% multiplier and white collar adjustment applied to RP-2014
- b. Healthy females - RP-2014 with generational mortality improvements using scale MP-2015, a 115% multiplier and white collar adjustment applied to RP-2014

See sample rates below:

Ages	% Dying Within Next Year	
	Retirees	
	Men	Women
45	0.19%	0.18%
50	0.28%	0.23%
55	0.40%	0.31%
60	0.55%	0.44%
65	0.79%	0.74%
70	1.28%	1.19%
75	2.20%	1.99%
80	3.86%	3.45%
85	7.08%	6.20%

3. Mortality rates of active members – RP-2014 Employee Mortality Tables, with generational improvements using scale MP-2015, setback one year with a 105% multiplier for males, and setback two years with a 50% multiplier for females, applied to RP-2014, as shown below for selected ages:

Ages	% of Active Members Dying Within Next Year	
	Men	Women
30	0.05%	0.01%
35	0.05%	0.01%
40	0.06%	0.02%
45	0.09%	0.03%
50	0.15%	0.04%
55	0.26%	0.07%
60	0.44%	0.10%
65	0.77%	0.15%
70	1.29%	0.25%

4. Disability mortality after termination or retirement- RP-2014 Disabled Mortality Tables, with generational improvements using scale MP-2015, with setback of one year and a 100% multiplier for males, and setback one year with a 75% multiplier for females, applied to RP-2014, as shown below for selected ages:

Ages	% of Disabled Members Dying Within Next Year	
	Men	Women
30	0.41%	0.15%
35	0.77%	0.29%
40	1.16%	0.45%
45	1.55%	0.63%
50	1.92%	0.84%
55	2.25%	1.05%
60	2.57%	1.23%
65	3.01%	1.47%
70	3.77%	1.94%

5. Retirement –

- a. As shown below for Tier 1 members for selected ages (rates are only applied to members eligible for retirement):

Age	Percent of Eligible Active Members Retiring Within Next Year		
	Miscellaneous	Probation	Safety
50	4.0%	7.5%	20.0%
51	4.0%	7.5%	14.0%
52	4.0%	7.5%	10.0%
53	4.0%	7.5%	10.0%
54	4.0%	7.5%	12.0%
55	6.0%	10.0%	15.0%
56	6.0%	12.0%	12.0%
57	8.0%	12.0%	12.0%
58	8.0%	12.0%	12.0%
59	8.0%	12.0%	18.0%
60	10.0%	15.0%	25.0%
61	10.0%	15.0%	30.0%
62	20.0%	20.0%	40.0%
63	20.0%	20.0%	50.0%
64	20.0%	20.0%	75.0%
65	40.0%	40.0%	100.0%
66	30.0%	20.0%	
67	25.0%	20.0%	
68	25.0%	40.0%	
69	25.0%	50.0%	
70	100.0%	100.0%	

Current deferred vested members are assumed to retire at the later of age 60 (age 55 for Reserve Members) or attained age.

- b. As shown below for Tier 2 and future Tier 3 members for selected ages (rates are only applied to members eligible for retirement):

Age	Percent of Eligible Active Members Retiring Within Next Year		
	Miscellaneous	Probation	Safety
50	3.0%	7.5%	9.0%
51	3.0%	7.5%	9.0%
52	3.0%	7.5%	10.0%
53	3.0%	7.5%	10.0%
54	3.0%	7.5%	10.0%
55	6.0%	7.5%	10.0%
56	6.0%	7.5%	10.0%
57	6.0%	7.5%	10.0%
58	6.0%	9.0%	11.0%
59	6.0%	9.0%	15.0%
60	8.0%	10.0%	20.0%
61	8.0%	10.0%	25.0%
62	20.0%	20.0%	30.0%
63	20.0%	20.0%	40.0%
64	20.0%	20.0%	60.0%
65	40.0%	40.0%	100.0%
66	30.0%	20.0%	
67	25.0%	20.0%	
68	25.0%	40.0%	
69	25.0%	50.0%	
70	100.0%	100.0%	

6. Rates of separation from active membership (for causes other than death or retirement) - As shown below for selected ages:

Sample Ages	% of Active Members Separating Within Next Year			
	Miscellaneous Members			
	Disability	Withdrawal < 5 years	Withdrawal ≥ 5 years	Vested Termination
20	0.00%	12.50%	8.50%	0.00%
25	0.00%	11.00%	7.75%	3.50%
30	0.01%	9.50%	3.75%	4.00%
35	0.04%	8.00%	2.00%	3.50%
40	0.06%	7.00%	1.25%	3.00%
45	0.09%	6.00%	0.50%	3.00%
50	0.11%	6.00%	0.00%	2.50%
55	0.14%	6.00%	0.00%	2.00%
60	0.16%	6.00%	0.00%	0.00%
64	0.18%	6.00%	0.00%	0.00%
GRS Table No.	762			1188

Sample Ages	% of Active Members Separating Within Next Year			
	Safety and Probation Members			
	Disability	Withdrawal < 5 years	Withdrawal ≥ 5 years	Vested Termination
20	0.00%	5.20%	1.50%	3.00%
25	0.03%	5.00%	1.50%	2.00%
30	0.13%	4.70%	1.00%	1.50%
35	0.23%	4.00%	0.50%	1.50%
40	0.33%	3.50%	0.50%	1.50%
45	0.43%	2.50%	0.00%	1.50%
50	0.53%	1.50%	0.00%	1.50%
55	0.63%	0.00%	0.00%	0.00%
60	0.73%	0.00%	0.00%	0.00%
64	0.81%	0.00%	0.00%	0.00%
GRS Table No.	761			1189

Vested termination rates and disability rates are applied after the member is eligible for reduced or unreduced retirement benefits. 100% of the Safety disabilities and 0% of the Miscellaneous and Probation disabilities are duty-related.

40% of Vested Terminations are assumed to be Reciprocal.

Based on Member Contribution Totals provided by Pension Trust, we are assuming that 10% of members' contribution account balances are for supplemental/additional benefits.

C. Other Assumptions

Member Refunds. All or part of the employee contribution rate is subject to potential "Pick Up" by the employer. Our understanding is that "Pick Ups", and related interest, are subject to refund.

Deferral Age. The assumed retirement age for future Reserve and Reciprocal members is age 57.

Active Death. 100% of active deaths are assumed to be duty related.

Survivor Benefits. Marital status and spouses' census data were imputed with respect to active and deferred members.

Marital Status. 80% of men and 60% of women were assumed married at retirement.

Spouse Census. Women were assumed to be 3 years younger than men for active employees.

Disability Benefits. Benefits are not assumed to be offset by Social Security benefits.

IRC Section 415 Limits. We are assuming that IRC Section 415 limits, although applicable to this plan, will not impact any individual benefits.

ANALYSIS OF SELECTED ACTUARIAL ASSUMPTIONS COMPARED TO ACTUAL EXPERIENCE

Assumed and actual changes experienced in areas related to the following assumptions are shown:

	Year Ended December 31					Averages		
	2015	2014	2013	2012	2011	3 Year	5 Year	10 Year
Inflation ¹	2.6%	1.7%	1.9%	2.1%	2.6%	2.1%	2.2%	2.2%
Current Assumption	2.625%							
Average Pay Increase	3.2%	0.7%	-0.8%	0.0%	0.9%	1.0%	0.8%	2.0%
Current Assumption	3.125%							
Merit & Longevity Pay Increase	0.6%	-1.0%	-2.7%	-2.1%	-1.7%	-1.1%	-1.4%	-0.2%
Current Assumption	0.500%							
Total Payroll	5.6%	1.8%	0.2%	2.0%	-0.5%	2.5%	1.8%	2.1%
Current Assumption	3.375%							
Investment Return Rate ²	3.0%	5.3%	6.2%	6.2%	5.5%	4.8%	5.2%	5.8%
Current Assumption	7.125%							
Real Rate of Investment Return	0.4%	3.6%	4.3%	4.1%	2.9%	2.7%	3.0%	3.6%
Current Assumption	4.500%							

¹ Based on the average of the Consumer Price Index for Los Angeles –Riverside-Orange County and the San Francisco-Oakland-San Jose, All Items, 1982-84=100.

² Based on actuarial value of assets NOT market value or book value.

SECTION J

DEFINITIONS OF TECHNICAL TERMS

DEFINITIONS OF TECHNICAL TERMS

Actuarial Accrued Liability. The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability".

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and Compensation increases. Actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (Compensation increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Equivalent. A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Gain (Loss). The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

Amortization. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying off with lump sum payment.

Normal Cost. The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Accrued Liability. The difference between actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

Most retirement systems have unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized.

SECTION K

DISCLOSURES REQUIRED BY STATEMENTS NO. 25 AND 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

This information is presented in draft form for review by the County's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the County's financial statements.

CONTRIBUTIONS MADE JANUARY 1, 2015 TO DECEMBER 31, 2015

The Pension Trust's funding policy provides for periodic employer appropriations at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due.

During the period January 1, 2015 to December 31, 2015 applicable contributions of \$57,973,419 were made. The contribution breakdown is as follows:

Contributions Made*

Employer Appropriations	\$33,618,330
Member Contributions	<u>24,355,089</u>
Grand Totals	\$57,973,419

- * Does not include Employee Additional Voluntary (\$60,635) and County Additional for Employee Contributions (\$171,011). These contributions are excluded as both assets and liabilities.

ACCOUNTING DISCLOSURE

The following numbers are consistent with our understanding of the historical accounting provisions of GASB Statements #25 and #27, based on the figures supplied to Gabriel, Roeder, Smith and Company.

Year Ended	Total Annual Required Contribution	Actual Employee Contribution	Actuarially Required Contributions (ARC) ⁴	Employer Contributions Made	Percent Contributed	Investment Return ¹
31-Dec						
2001	\$6,776,216	\$9,200,681	\$15,976,897	\$12,639,251 ²	79%	7.4%
2002	6,927,576	10,636,366	17,563,942	14,628,625	83%	4.4%
2003	8,036,014	12,136,923	20,172,937	150,813,215	748%	6.1%
2004	4,227,686	12,663,198	16,890,884	16,520,585	98%	6.5%
2005	5,874,058	14,133,919	20,007,977	18,209,481	91%	6.4%
2006	6,520,975	15,496,805	22,017,780	19,177,491	87%	7.8%
2007	16,434,264	17,406,316	33,840,580 ³	24,014,202	71%	8.4%
2008	12,093,156	22,840,488	34,933,644	30,860,282	88%	0.3%
2009	55,127,772	24,170,461	30,957,311 ⁵	31,427,297	102%	5.7%
2010	54,826,804	24,548,625	30,278,179 ⁵	32,148,424	106%	6.0%
2011	55,314,049	25,262,362	30,051,687 ⁵	30,435,940	101%	5.5%
2012	56,329,706	25,207,165	31,122,541 ⁵	30,942,038	99%	6.2%
2013	57,876,463	24,459,738	33,416,725 ⁵	30,795,872	92%	6.2%
2014	56,882,016	24,415,512	32,466,504 ⁵	32,046,545	99%	5.3%
2015	59,926,910	24,586,735	35,340,175 ⁵	33,618,330	95%	3.0%

¹ Based on actuarial value of assets.

² Excludes County Employee Additional Contributions.

³ The figures represent the valuation year commencing January 1, 2007.

⁴ Effective July 1, 2008, the three part funding rate increase has been completed.

⁵ The ARC shown is the difference between the total annual required contribution and the actual employee contributions made. 2009 is the first year the disclosure has been shown to reflect the funding policy of the trust to fund the total annual required contribution through a combination of employer and employee contributions.

SECTION L

APPENDIX A: CURRENT MEMBER CONTRIBUTION RATES AND COLLECTIVE BARGAINING UNITS

Note: The following rates are the rates submitted in the data and used in the valuation.

JANUARY 1, 2016 ACTUARIAL VALUATION MEMBER CONTRIBUTION RATES*

MISCELLANEOUS - TIER 1

BU	14,21,22	7 (LAFCO)	7,8,9,10, 11,17	4,12,99	17C (Interpreter)	18	20	24,26,27	25	1,5,13	2	19	98
Entry	Non-Court		Non-Court	Non-Court	Court	Court	Court	Court	Court	Non-Court	Non-Court	Court	Non-Court
Age	Other	Management	Management	Management	Other	Other	Other	Management	Management	SLOCEA	SLOCEA	SLOCEA	SLOCEA
18	14.25%	11.14%	14.75%	14.26%	13.22%	13.22%	10.70%	11.99%	11.83%	14.44%	13.88%	10.14%	13.95%
19	14.32%	11.21%	14.82%	14.33%	13.29%	13.29%	10.77%	12.06%	11.90%	14.51%	13.95%	10.21%	14.02%
20	14.39%	11.28%	14.89%	14.40%	13.36%	13.36%	10.84%	12.13%	11.97%	14.58%	14.02%	10.28%	14.09%
21	14.45%	11.34%	14.95%	14.46%	13.42%	13.42%	10.90%	12.19%	12.03%	14.64%	14.08%	10.34%	14.15%
22	14.47%	11.36%	14.97%	14.48%	13.44%	13.44%	10.92%	12.21%	12.05%	14.66%	14.10%	10.36%	14.17%
23	14.49%	11.38%	14.99%	14.50%	13.46%	13.46%	10.94%	12.23%	12.07%	14.68%	14.12%	10.38%	14.19%
24	14.52%	11.41%	15.02%	14.53%	13.49%	13.49%	10.97%	12.26%	12.10%	14.71%	14.15%	10.41%	14.22%
25	14.56%	11.45%	15.06%	14.57%	13.53%	13.53%	11.01%	12.30%	12.14%	14.75%	14.19%	10.45%	14.26%
26	14.61%	11.50%	15.11%	14.62%	13.58%	13.58%	11.06%	12.35%	12.19%	14.80%	14.24%	10.50%	14.31%
27	14.66%	11.55%	15.16%	14.67%	13.63%	13.63%	11.11%	12.40%	12.24%	14.85%	14.29%	10.55%	14.36%
28	14.72%	11.61%	15.22%	14.73%	13.69%	13.69%	11.17%	12.46%	12.30%	14.91%	14.35%	10.61%	14.42%
29	14.79%	11.68%	15.29%	14.80%	13.76%	13.76%	11.24%	12.53%	12.37%	14.98%	14.42%	10.68%	14.49%
30	14.86%	11.75%	15.36%	14.87%	13.83%	13.83%	11.31%	12.60%	12.44%	15.05%	14.49%	10.75%	14.56%
31	14.94%	11.83%	15.44%	14.95%	13.91%	13.91%	11.39%	12.68%	12.52%	15.13%	14.57%	10.83%	14.64%
32	15.03%	11.92%	15.53%	15.04%	14.00%	14.00%	11.48%	12.77%	12.61%	15.22%	14.66%	10.92%	14.73%
33	15.12%	12.01%	15.62%	15.13%	14.09%	14.09%	11.57%	12.86%	12.70%	15.31%	14.75%	11.01%	14.82%
34	15.22%	12.11%	15.72%	15.23%	14.19%	14.19%	11.67%	12.96%	12.80%	15.41%	14.85%	11.11%	14.92%
35	15.32%	12.21%	15.82%	15.33%	14.29%	14.29%	11.77%	13.06%	12.90%	15.51%	14.95%	11.21%	15.02%
36	15.42%	12.31%	15.92%	15.43%	14.39%	14.39%	11.87%	13.16%	13.00%	15.61%	15.05%	11.31%	15.12%
37	15.53%	12.42%	16.03%	15.54%	14.50%	14.50%	11.98%	13.27%	13.11%	15.72%	15.16%	11.42%	15.23%
38	15.64%	12.53%	16.14%	15.65%	14.61%	14.61%	12.09%	13.38%	13.22%	15.83%	15.27%	11.53%	15.34%
39	15.76%	12.65%	16.26%	15.77%	14.73%	14.73%	12.21%	13.50%	13.34%	15.95%	15.39%	11.65%	15.46%
40	15.88%	12.77%	16.38%	15.89%	14.85%	14.85%	12.33%	13.62%	13.46%	16.07%	15.51%	11.77%	15.58%
41	16.01%	12.90%	16.51%	16.02%	14.98%	14.98%	12.46%	13.75%	13.59%	16.20%	15.64%	11.90%	15.71%
42	16.14%	13.03%	16.64%	16.15%	15.11%	15.11%	12.59%	13.88%	13.72%	16.33%	15.77%	12.03%	15.84%
43	16.28%	13.17%	16.78%	16.29%	15.25%	15.25%	12.73%	14.02%	13.86%	16.47%	15.91%	12.17%	15.98%
44	16.42%	13.31%	16.92%	16.43%	15.39%	15.39%	12.87%	14.16%	14.00%	16.61%	16.05%	12.31%	16.12%
45	16.56%	13.45%	17.06%	16.57%	15.53%	15.53%	13.01%	14.30%	14.14%	16.75%	16.19%	12.45%	16.26%
46	16.71%	13.60%	17.21%	16.72%	15.68%	15.68%	13.16%	14.45%	14.29%	16.90%	16.34%	12.60%	16.41%
47	16.87%	13.76%	17.37%	16.88%	15.84%	15.84%	13.32%	14.61%	14.45%	17.06%	16.50%	12.76%	16.57%
48	17.03%	13.92%	17.53%	17.04%	16.00%	16.00%	13.48%	14.77%	14.61%	17.22%	16.66%	12.92%	16.73%
49	17.19%	14.08%	17.69%	17.20%	16.16%	16.16%	13.64%	14.93%	14.77%	17.38%	16.82%	13.08%	16.89%
50	17.36%	14.25%	17.86%	17.37%	16.33%	16.33%	13.81%	15.10%	14.94%	17.55%	16.99%	13.25%	17.06%
51	17.53%	14.42%	18.03%	17.54%	16.50%	16.50%	13.98%	15.27%	15.11%	17.72%	17.16%	13.42%	17.23%
52	17.70%	14.59%	18.20%	17.71%	16.67%	16.67%	14.15%	15.44%	15.28%	17.89%	17.33%	13.59%	17.40%
53	17.88%	14.77%	18.38%	17.89%	16.85%	16.85%	14.33%	15.62%	15.46%	18.07%	17.51%	13.77%	17.58%
54	18.06%	14.95%	18.56%	18.07%	17.03%	17.03%	14.51%	15.80%	15.64%	18.25%	17.69%	13.95%	17.76%
55	18.25%	15.14%	18.75%	18.26%	17.22%	17.22%	14.70%	15.99%	15.83%	18.44%	17.88%	14.14%	17.95%
56	18.44%	15.33%	18.94%	18.45%	17.41%	17.41%	14.89%	16.18%	16.02%	18.63%	18.07%	14.33%	18.14%
57	18.63%	15.52%	19.13%	18.64%	17.60%	17.60%	15.08%	16.37%	16.21%	18.82%	18.26%	14.52%	18.33%
58	18.83%	15.72%	19.33%	18.84%	17.80%	17.80%	15.28%	16.57%	16.41%	19.02%	18.46%	14.72%	18.53%
59	19.03%	15.92%	19.53%	19.04%	18.00%	18.00%	15.48%	16.77%	16.61%	19.22%	18.66%	14.92%	18.73%

* Rates do not include Auto Allowance for certain individuals. These are the rates in effect at the time of the valuation and which were increased through the collective bargaining process.

JANUARY 1, 2016 ACTUARIAL VALUATION MEMBER CONTRIBUTION RATES*

BU Entry Age	PROBATION - TIER 1		
	8	9	31,32 Non-
	<u>Management</u>	<u>Management</u>	<u>Management</u>
18	18.21%	19.71%	17.02%
19	18.29%	19.79%	17.10%
20	18.37%	19.87%	17.18%
21	18.44%	19.94%	17.25%
22	18.46%	19.96%	17.27%
23	18.48%	19.98%	17.29%
24	18.51%	20.01%	17.32%
25	18.56%	20.06%	17.37%
26	18.61%	20.11%	17.42%
27	18.67%	20.17%	17.48%
28	18.73%	20.23%	17.54%
29	18.81%	20.31%	17.62%
30	18.89%	20.39%	17.70%
31	18.98%	20.48%	17.79%
32	19.08%	20.58%	17.89%
33	19.18%	20.68%	17.99%
34	19.29%	20.79%	18.10%
35	19.40%	20.90%	18.21%
36	19.51%	21.01%	18.32%
37	19.63%	21.13%	18.44%
38	19.75%	21.25%	18.56%
39	19.88%	21.38%	18.69%
40	20.02%	21.52%	18.83%
41	20.16%	21.66%	18.97%
42	20.30%	21.80%	19.11%
43	20.46%	21.96%	19.27%
44	20.61%	22.11%	19.42%
45	20.77%	22.27%	19.58%
46	20.94%	22.44%	19.75%
47	21.11%	22.61%	19.92%
48	21.29%	22.79%	20.10%
49	21.47%	22.97%	20.28%
50	21.65%	23.15%	20.46%
51	21.84%	23.34%	20.65%
52	22.03%	23.53%	20.84%
53	22.23%	23.73%	21.04%
54	22.43%	23.93%	21.24%
55	22.64%	24.14%	21.45%
56	22.85%	24.35%	21.66%
57	23.06%	24.56%	21.87%
58	23.28%	24.78%	22.09%
59+	23.50%	25.00%	22.31%

* Rates for Bargaining Unit 9 include an Auto Allowance component. These are the rates in effect at the time of the valuation and which were increased through the collective bargaining process.

JANUARY 1, 2016 ACTUARIAL VALUATION MEMBER CONTRIBUTION RATES*

SAFETY - TIER 1								
BU	6	3,14	27,28	7	10	15	15	16
Entry	Non-	Non-	Non-		(Sheriff-Coroner)	(non-sworn)	(sworn)	(sworn)
Age	Management	Management	Management	Management	Management	Management#	Management@	Management
18	14.69%	14.35%	18.74%	16.35%	21.00%	18.43%	23.18%	23.18%
19	14.80%	14.46%	18.85%	16.46%	21.11%	18.54%	23.29%	23.29%
20	14.91%	14.57%	18.96%	16.57%	21.22%	18.65%	23.40%	23.40%
21	15.02%	14.68%	19.07%	16.68%	21.33%	18.76%	23.51%	23.51%
22	15.13%	14.79%	19.18%	16.79%	21.44%	18.87%	23.62%	23.62%
23	15.25%	14.91%	19.30%	16.91%	21.56%	18.99%	23.74%	23.74%
24	15.37%	15.03%	19.42%	17.03%	21.68%	19.11%	23.86%	23.86%
25	15.49%	15.15%	19.54%	17.15%	21.80%	19.23%	23.98%	23.98%
26	15.61%	15.27%	19.66%	17.27%	21.92%	19.35%	24.10%	24.10%
27	15.73%	15.39%	19.78%	17.39%	22.04%	19.47%	24.22%	24.22%
28	15.85%	15.51%	19.90%	17.51%	22.16%	19.59%	24.34%	24.34%
29	15.97%	15.63%	20.02%	17.63%	22.28%	19.71%	24.46%	24.46%
30	16.09%	15.75%	20.14%	17.75%	22.40%	19.83%	24.58%	24.58%
31	16.21%	15.87%	20.26%	17.87%	22.52%	19.95%	24.70%	24.70%
32	16.33%	15.99%	20.38%	17.99%	22.64%	20.07%	24.82%	24.82%
33	16.45%	16.11%	20.50%	18.11%	22.76%	20.19%	24.94%	24.94%
34	16.57%	16.23%	20.62%	18.23%	22.88%	20.31%	25.06%	25.06%
35	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
36	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
37	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
38	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
39	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
40	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
41	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
42	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
43	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
44	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
45	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
46	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
47	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
48	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
49	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
50	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
51	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
52	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
53	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
54	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
55	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
56	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
57	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
58	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%
59+	16.69%	16.35%	20.74%	18.35%	23.00%	20.43%	25.18%	25.18%

* Rates do not include Auto Allowance for certain individuals. These are the rates in effect at the time of the valuation and which were increased through the collective bargaining process.

#Includes Non Sworn members of Bargaining Unit 15.

@ Includes Sworn members of Bargaining Unit 15.

JANUARY 1, 2016 ACTUARIAL VALUATION MEMBER CONTRIBUTION RATES

BU Entry Age	Tier 2			
	all others Miscellaneous	4, 12, 98, 99 Miscellaneous	all Safety - Non-Sworn	all Safety - Sworn
18	5.86%	5.37%	8.58%	9.27%
19	5.98%	5.49%	8.93%	9.67%
20	6.10%	5.61%	9.28%	10.07%
21	6.25%	5.76%	9.63%	10.47%
22	6.36%	5.87%	9.98%	10.87%
23	6.52%	6.03%	10.33%	11.27%
24	6.64%	6.15%	10.68%	11.68%
25	6.78%	6.29%	11.03%	12.08%
26	6.98%	6.49%	11.38%	12.48%
27	7.08%	6.59%	11.73%	12.88%
28	7.27%	6.78%	12.08%	13.28%
29	7.42%	6.93%	12.43%	13.68%
30	7.72%	7.23%	12.78%	14.08%
31	7.88%	7.39%	13.13%	14.48%
32	8.17%	7.68%	13.48%	14.89%
33	8.32%	7.83%	13.83%	15.29%
34	8.50%	8.01%	14.18%	15.69%
35	8.82%	8.33%	14.53%	16.09%
36	8.97%	8.48%	14.53%	16.09%
37	9.18%	8.69%	14.53%	16.09%
38	9.41%	8.92%	14.53%	16.09%
39	9.62%	9.13%	14.53%	16.09%
40	9.82%	9.33%	14.53%	16.09%
41	9.97%	9.48%	14.53%	16.09%
42	10.00%	9.51%	14.53%	16.09%
43	10.23%	9.74%	14.53%	16.09%
44	10.46%	9.97%	14.53%	16.09%
45	10.55%	10.06%	14.53%	16.09%
46	10.83%	10.34%	14.53%	16.09%
47	11.07%	10.58%	14.53%	16.09%
48	11.17%	10.68%	14.53%	16.09%
49	11.45%	10.96%	14.53%	16.09%
50	11.49%	11.00%	14.53%	16.09%
51	11.70%	11.21%	14.53%	16.09%
52	11.76%	11.27%	14.53%	16.09%
53	11.96%	11.47%	14.53%	16.09%
54	12.15%	11.66%	14.53%	16.09%
55	12.45%	11.96%	14.53%	16.09%
56	12.51%	12.02%	14.53%	16.09%
57	12.53%	12.04%	14.53%	16.09%
58	12.55%	12.06%	14.53%	16.09%
59	12.57%	12.08%	14.53%	16.09%
60	12.59%	12.10%	14.53%	16.09%
61	12.61%	12.12%	14.53%	16.09%
62+	12.63%	12.14%	14.53%	16.09%

JANUARY 1, 2016 ACTUARIAL VALUATION MEMBER CONTRIBUTION RATES

BU Entry Age	Tier 3				
	all other <u>Miscellaneous</u>	4, 12, 98, 99 <u>Miscellaneous</u>	25 <u>Miscellaneous</u>	all <u>Safety</u>	all <u>Probation</u>
18	4.24%	3.75%	4.08%	7.38%	5.78%
19	4.49%	4.00%	4.33%	7.88%	6.03%
20	4.49%	4.00%	4.33%	8.13%	6.28%
21	4.74%	4.25%	4.58%	8.38%	6.28%
22	4.74%	4.25%	4.58%	8.63%	6.53%
23	4.99%	4.50%	4.83%	9.13%	6.78%
24	4.99%	4.50%	4.83%	9.38%	7.03%
25	5.24%	4.75%	5.08%	9.63%	7.28%
26	5.49%	5.00%	5.33%	10.13%	7.53%
27	5.49%	5.00%	5.33%	10.38%	7.78%
28	5.74%	5.25%	5.58%	10.63%	8.28%
29	5.99%	5.50%	5.83%	11.13%	8.53%
30	5.99%	5.50%	5.83%	11.38%	8.78%
31	6.24%	5.75%	6.08%	11.63%	9.28%
32	6.49%	6.00%	6.33%	12.13%	9.53%
33	6.74%	6.25%	6.58%	12.38%	9.78%
34	6.99%	6.50%	6.83%	12.63%	10.28%
35	6.99%	6.50%	6.83%	13.13%	10.53%
36	7.24%	6.75%	7.08%	13.13%	11.03%
37	7.49%	7.00%	7.33%	13.13%	11.28%
38	7.74%	7.25%	7.58%	13.13%	11.53%
39	7.99%	7.50%	7.83%	13.13%	11.78%
40	8.24%	7.75%	8.08%	13.13%	12.03%
41	8.49%	8.00%	8.33%	13.13%	12.28%
42	8.49%	8.00%	8.33%	13.13%	12.53%
43	8.74%	8.25%	8.58%	13.13%	12.78%
44	8.99%	8.50%	8.83%	13.13%	13.03%
45	9.24%	8.75%	9.08%	13.13%	13.28%
46	9.49%	9.00%	9.33%	13.13%	13.53%
47	9.74%	9.25%	9.58%	13.13%	13.78%
48	9.99%	9.50%	9.83%	13.13%	14.03%
49	10.24%	9.75%	10.08%	13.13%	14.03%
50	10.49%	10.00%	10.33%	13.13%	14.28%
51	10.74%	10.25%	10.58%	13.13%	14.53%
52	10.99%	10.50%	10.83%	13.13%	14.53%
53	11.24%	10.75%	11.08%	13.13%	14.78%
54	11.49%	11.00%	11.33%	13.13%	14.78%
55	11.74%	11.25%	11.58%	13.13%	15.03%
56	11.99%	11.50%	11.83%	13.13%	15.28%
57	11.99%	11.50%	11.83%	13.13%	15.28%
58	11.99%	11.50%	11.83%	13.13%	15.53%
59	11.99%	11.50%	11.83%	13.13%	15.78%
60	11.99%	11.50%	11.83%	13.13%	15.78%
61	11.99%	11.50%	11.83%	13.13%	15.78%
62+	11.99%	11.50%	11.83%	13.13%	15.78%

SUMMARY OF BENEFITS
BY COLLECTIVE BARGAINING UNIT
AS OF JANUARY 1, 2016

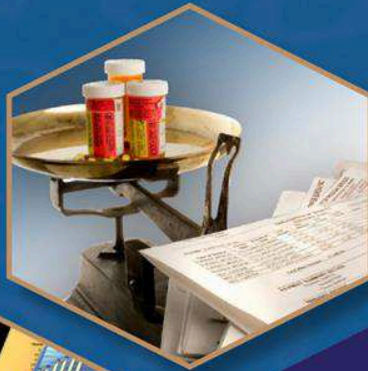
Tier 1

Collective Bargaining Unit	Valuation Group	Benefit % at age	FAC Period	Benefit Maximum
14	Miscellaneous Other	2% @ 55	One year	80%
21	Miscellaneous Other	2% @ 55	One year	80%
22	Miscellaneous Other	2% @ 55	One year	80%
4	Miscellaneous Management Non-Court	2% @ 55	One year	100%
7	Miscellaneous Management Non-Court	2% @ 55	One year	100%
8	Miscellaneous Management Non-Court	2% @ 55	One year	100%
9	Miscellaneous Management Non-Court	2% @ 55	One year	100%
10	Miscellaneous Management Non-Court	2% @ 55	One year	100%
11	Miscellaneous Management Non-Court	2% @ 55	One year	100%
12	Miscellaneous Management Non-Court	2% @ 55	One year	100%
17	Miscellaneous Management Non-Court	2% @ 55	One year	100%
99	Miscellaneous Management Non-Court	2% @ 55	One year	100%
17C	Miscellaneous Other Court	2% @ 55	One year	80%
18	Miscellaneous Other Court	2% @ 55	One year	80%
20	Miscellaneous Other Court	2% @ 55	One year	80%
24	Miscellaneous Management Court	2% @ 55	One year	100%
25	Miscellaneous Management Court	2% @ 55	One year	100%
26	Miscellaneous Management Court	2% @ 55	One year	100%
27	Miscellaneous Management Court	2% @ 55	One year	100%
1	SLOCEA Non Court	2% @ 55	One year	80%
2	SLOCEA Non Court	2% @ 55	One year	80%
5	SLOCEA Non Court	2% @ 55	One year	80%
13	SLOCEA Non Court	2% @ 55	One year	80%
98	SLOCEA Non Court	2% @ 55	One year	80%
19	SLOCEA Court	2% @ 55	One year	80%
8	Probation Management	3% @ 55	One year	90%
9	Probation Management	3% @ 55	One year	90%
31	Probation Non Management	3% @ 55	One year	90%
32	Probation Non Management	3% @ 55	One year	90%
3	Non Sworn Safety Non Management	3% @ 55	One year	90%
27	Sworn Safety Non Management	3% @ 50	One year	90%
6	Non Sworn Safety Non Management	3% @ 55	One year	90%
7	Non Sworn Safety Management	3% @ 55	One year	90%
10	Sworn Safety Management	3% @ 50	One year	90%
14	Non Sworn Safety Non Management	3% @ 55	One year	90%
28	Sworn Safety Non Management	3% @ 50	One year	90%
15	Non Sworn Safety Management	3% @ 55	One year	90%
15	Sworn Safety Management	3% @ 50	One year	90%
16	Sworn Safety Management	3% @ 50	One year	90%

**SUMMARY OF BENEFITS
BY COLLECTIVE BARGAINING UNIT
AS OF JANUARY 1, 2016**

Collective Bargaining Unit	Valuation Group	Benefit % at age	FAC Period	Benefit Maximum
Tier 2	Miscellaneous Non-Court	2% @ 60	Three year	90%
Tier 2	Non Sworn Safety	2.7% @ 55	Three year	90%
Tier 2	Sworn Safety	3.0% @ 55	Three year	90%
Tier 2	DAIA	3.0% @ 55	Three year	90%
Tier 3	Miscellaneous	2% @ 62	Three year	N/A *
Tier 3	Safety	2.7% @ 57	Three year	N/A *
Tier 3	Probation	2.7% @ 57	Three year	N/A *

* No benefit maximum but pensionable compensation is capped at \$117, 020 for 2016 and increased annually based on inflation.



San Luis Obispo County Pension Trust

ACTUARIAL VALUATION AS OF JANUARY 1, 2016



Gabriel Roeder Smith & Company
Consultants & Actuaries
www.gabrielroeder.com



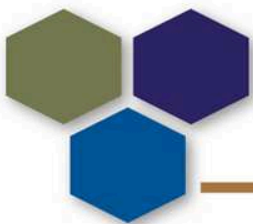
Actuarial Valuation-Key Findings

- ◆ Rate increase of 4.85% recommended
 - ▶ The Annual Required Contribution (ARC) is 38.90% while the rate being charged is 34.05%
- ◆ The rate margin does not allow for accelerated recognition of the 2008 asset loss
 - ▶ Original loss as of January 1, 2009 was \$299 million
 - ▶ After recognition as of January 1, 2016 still \$40 million yet to be recognized



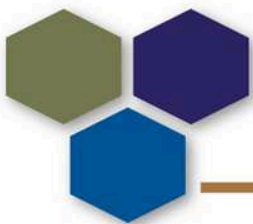
Actuarial Valuation-Key Findings

- ◆ The market value return was -1.44%; however, the actuarial value of assets return was 3.01%
- ◆ Normal cost is decreasing, from 21.64% last year to 21.35% this year
 - ▶ Tier 2 now mostly closed (except for new reciprocal members), with 309 active members
 - ▶ Tier 3 in effect (under AB 340) with 592 active members as of the valuation
- ◆ Funded ratio decreased from 76.7% to 71.4%
- ◆ Funded ratio is 64.9% based on market value of assets



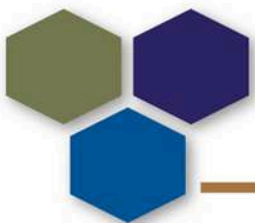
Development of the Charged Rate

Category	Dollar Amounts	Rates as a percent of payroll
Employee Contributions	\$24,586,735	13.95%
Employer Appropriations	\$33,618,330	19.08%
Total	\$58,205,065	33.03%
Increase at 1/1/2016	\$1,805,440	1.02%
Grand Total Contributions	\$60,010,505	34.05%
Total Reported Payroll	\$177,003,887	



Development of the ARC and Recommended Rate Increase

	Jan 1, 2016	Jan 1, 2015	Change
1. Total Normal Cost	21.35%	21.64%	(0.29)%
2. Less Employee Rate	13.88%	13.93%	(0.05)%
3. County Normal Cost (1.-2.)	7.47%	7.71%	(0.24)%
4. Amortization Payment	17.55%	13.13%	4.42%
5. ARC (3.+4.)	25.01%	20.84%	4.17%
6. Total Required Contribution (2.+5.)	38.90%	34.77%	4.13%
7. Total Charged Rate	34.05%	33.82%	0.23%
8. Recommended Rate Increase	4.85%	0.95%	



Charged Rate

- ◆ The current charged rate is not adequate to meet the Total Annual Required Contribution
- ◆ The normal cost will continue to decrease with more Tier 3 members
- ◆ The total charged rate will also continue to decrease as more Tier 3 members enter the plan with their lower employee contribution rates
- ◆ Losses are still being smoothed into the actuarial value of assets, thus an upward rate pressure still exists



Asset values

- Changes in asset values since the prior valuation:

	Jan 1, 2016	Jan 1, 2015	Rate of Return
Market Value	\$1,135,803	\$1,173,336	-1.44%
Actuarial Value	\$1,248,328	\$1,231,474	3.01%

(in thousands)



Schedule of Recognition of 2008 Asset Loss

Plan Year	Remaining Loss Balance at Beginning of Year	Amount Recognized	Remaining Loss Balance at End of Year
2009	\$ 299,363,960	\$ 29,936,396	\$ 269,427,564
2010	269,427,564	29,936,396	239,491,168
2011	239,491,168	39,936,396	199,554,772
2012	199,554,772	29,936,396	169,618,376
2013	169,618,376	29,936,396	139,681,980
2014	139,681,980	39,936,396	99,745,584
2015	99,745,584	29,936,396	69,809,188
2016	69,809,188	29,936,396	39,872,792
2017	39,872,792	29,936,396	9,936,396
2018	9,936,396	9,936,396	0





Asset returns

- ◆ Market value return was -1.44%
 - ▶ Fair market value decreased from \$1,173 million to \$1,135 million
 - ▶ The amount of investment income “expected” was \$89 million
 - ▶ The actual amount of investment income received was -\$17 million
 - ▶ The \$105 million loss is to be phased in over 5 years
- ◆ The actuarial value return was 3.01%
 - ▶ This is less than the assumption and produces a loss in this year



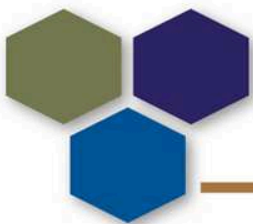
Asset gains and losses

- ◆ The portion of each year's investment gains and losses being recognized is:
 - ▶ Current \$ (21.0)
 - ▶ 2014 \$ (6.7)
 - ▶ 2013 \$ 10.2
 - ▶ 2012 \$ 6.4
 - ▶ 2011 \$ (10.7)
 - ▶ 2008 \$ (29.9)
 - ▶ Total recognized for this year \$(51.8) million
- ◆ Total yet to be recognized
 - ▶ *the difference between the actuarial and market value*
 - ▶ \$ (112.5 million) in deferred losses
- ◆ Actuarial value of assets is 110% of market value



Membership

- ◆ Average age of active members is 46.1, compared to 46.6 last year
- ◆ Average years of service is 10.1, compared to 10.4 last year
- ◆ Average pay for all *continuing* active members increased 5.96%
- ◆ *The decrease in age supports the data that shows members starting to retire and tier 3 members are entering the plan*



Membership Statistics

- Changes in membership since the prior valuation:

	Jan 1, 2016	Jan 1, 2015	Percent change
Actives	2,609	2,550	2.3%
Ret and Ben.	2,517	2,401	4.8%
Inactives	450	449	0.2%
Total Membership	5,576	5,400	3.3%
Total Payroll	\$177,004	\$167,695	5.6%
Average Pay	\$67,844	\$65,763	3.2%



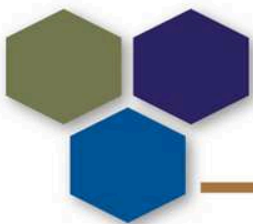
Actuarial Results-Liabilities

	Jan 1, 2016	Jan 1, 2015	Change
Accrued Liability	\$1.75B	\$1.61B	\$144M
Unfunded Accrued Liability	\$501M	\$374M	\$127M
Actuarial Value of Assets	\$1.25B	\$1.23B	\$17M
Funded Ratio	71.4%	76.7%	(5.3)%



Actuarial Results

- ◆ Total actuarial experience losses to the plan for the year were \$58.0 million
 - ▶ Demographic losses were approximately \$6.3 million (0.39% of the accrued liability)
 - ▶ Asset losses were \$51.8 million
- ◆ Demographic experience results:
 - ▶ Salary increases being greater than assumed creates a loss (about \$4.8 million)
 - ▶ New entrant loss occurs each year and is offset by a gain in contributions (not separately shown)
 - ▶ Loss on mortality due to retirees living longer than assumed (nearly \$4.3 million)
 - ▶ Loss on retirement due to more than expected retirements (\$7.8 million)
 - ▶ Gain on the cost-of-living adjustment less than assumed
 - ▶ Other decrements had smaller gains and losses
- ◆ Assumption Changes:
 - ▶ Primary changes were to the discount rate, mortality update, and inflation (which also affects salary, payroll growth, and cola assumptions)
 - ▶ Increased liability an additional \$62.8 million



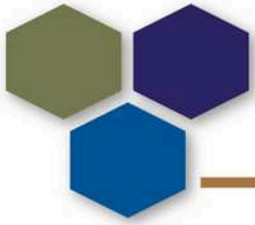
Cost impacts due to assumption changes (as of 1/1/2015 valuation)

Assumption Change (as %)	Increase/ (Decrease)
Investment return	1.03%
COLA	(1.01%)
Salary Increase	(.77%)
Termination	.14%
Retirement	.07%
Mortality	2.77%
Marriage	.29%
Payroll growth	.42%
Total	2.95%



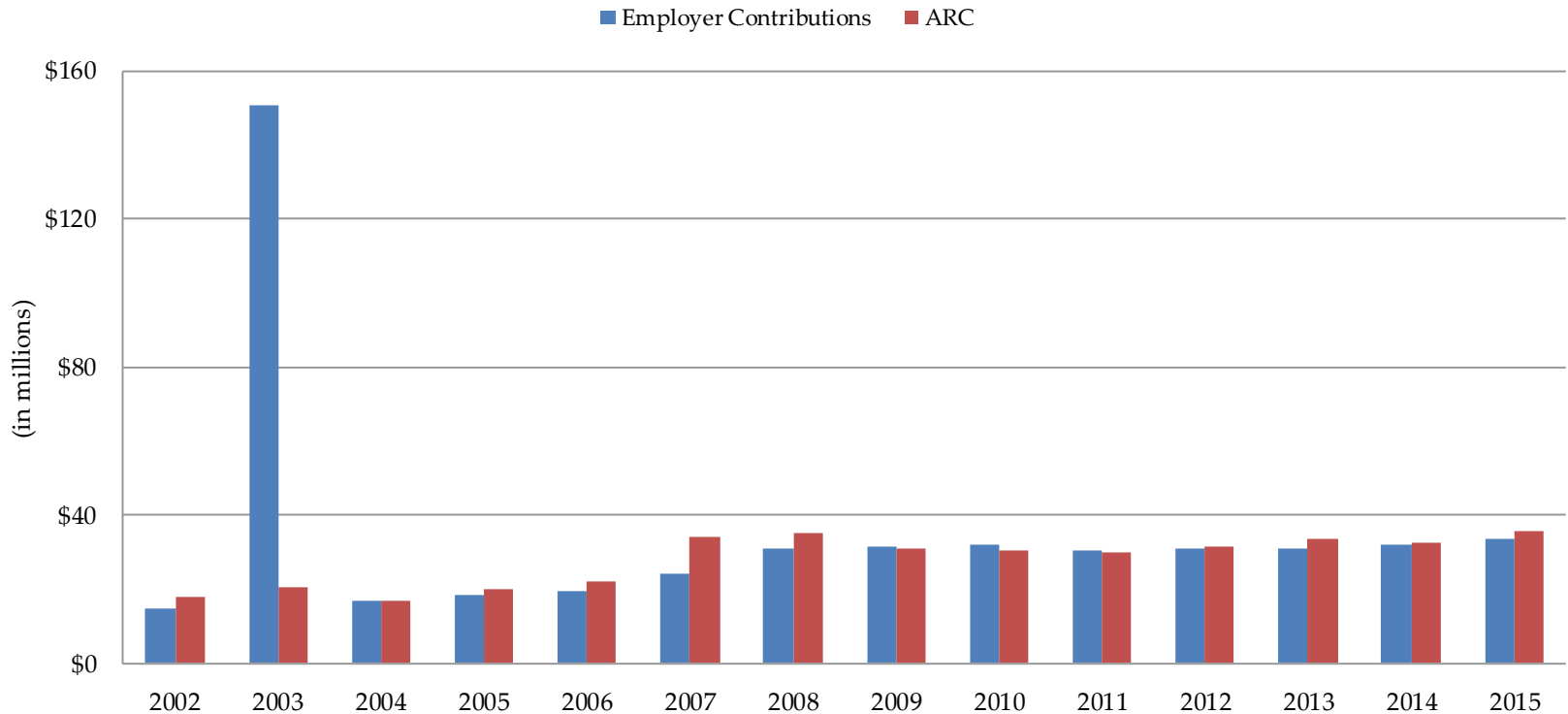
Attribution of Change in Required Contribution

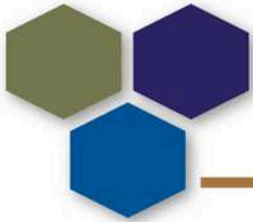
	Increase/ (Decrease)	Rate
Total Required Contribution at 1/1/2015		34.77%
Expected at 1/1/2016 (after assumption changes)	2.95%	37.72%
Expected at 1/1/2016 (with actual payroll)	(0.27%)	37.45%
Experience items during 2015:		
Decrease in normal cost	(0.66%)	36.79%
Due to investment experience	1.77%	38.56%
Due to pay increases	0.16%	38.72%
Due to retirement experience	0.27%	38.99%
Due to mortality experience	0.15%	39.14%
Due to lower actual COLA	(0.26%)	38.88%
Due to other factors	0.02%	38.90%
Actual Rate at 1/1/2016		38.90%



How has the Trust done in meeting its long term obligations?

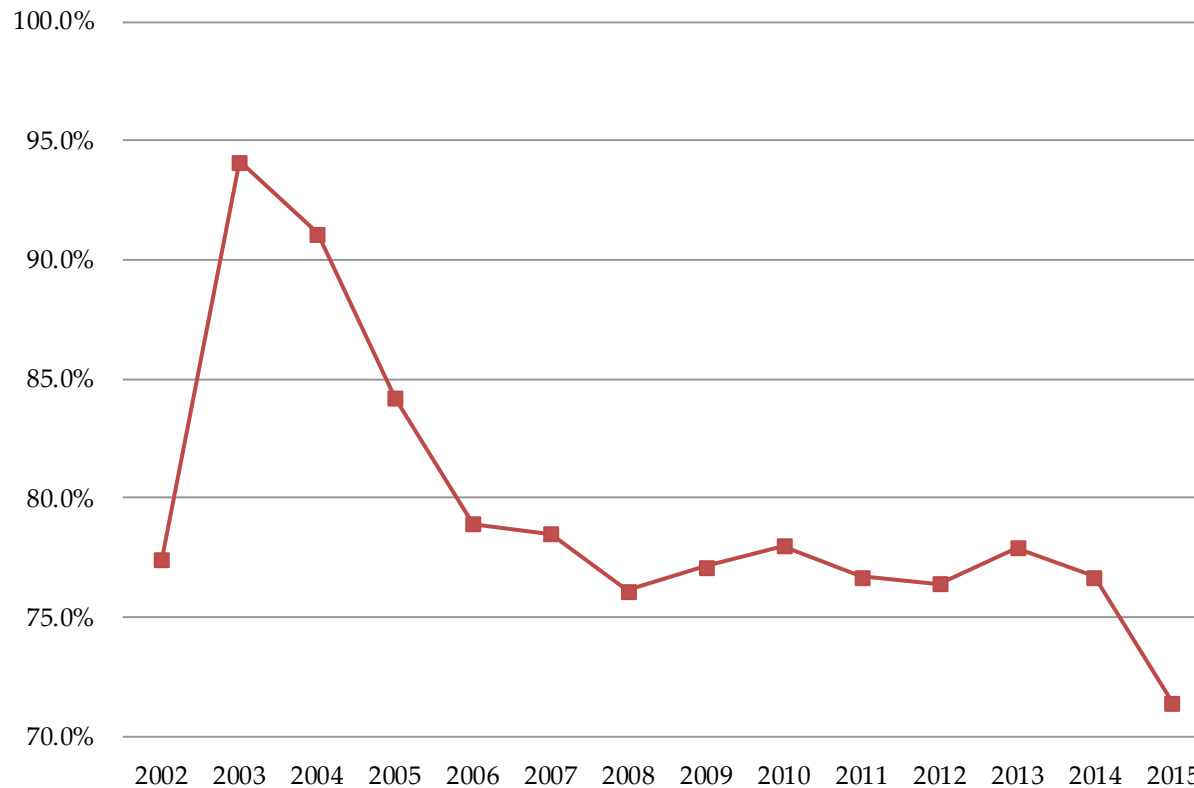
Annual Required Contribution vs Actual Contribution Made





How well are the assets of the trust covering the accrued liabilities?

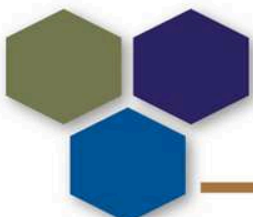
A year by year summary of the funded ratio





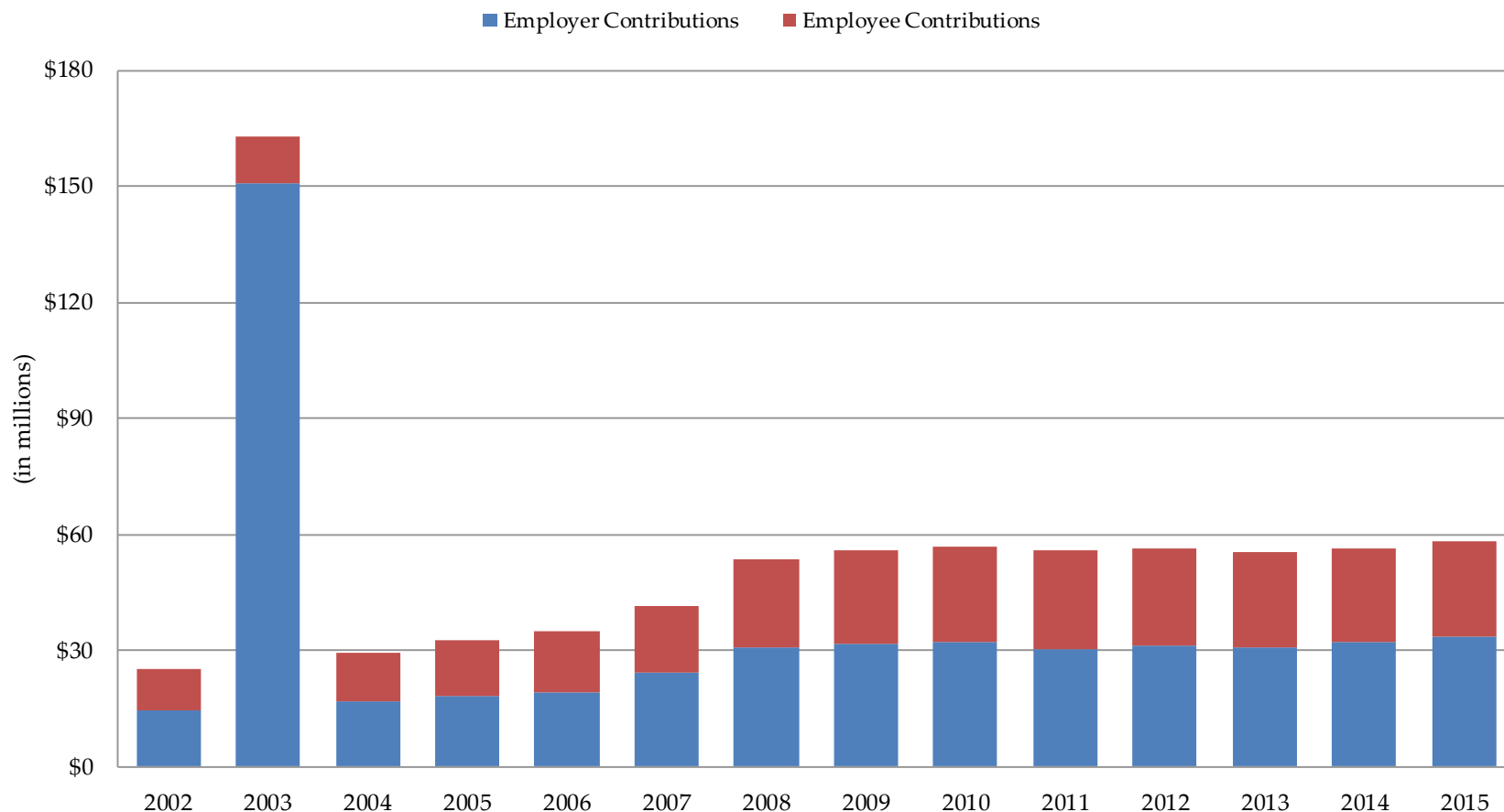
Change in Funded Ratio

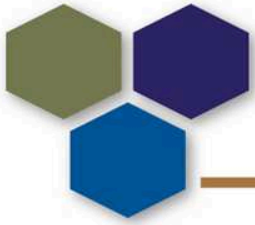
	Increase/ (Decrease)	Ratio
Funded Ratio at 1/1/2015		76.70%
Funded Ratio expected at 1/1/2016 (before assumption changes)	0.66%	77.36%
Funded Ratio expected at 1/1/2016 (after assumption changes)	(2.79%)	74.57%
Change in Funded Ratio due to:		
Investment experience	(2.95%)	71.62%
Pay increases	(0.20%)	71.42%
Retirement experience	(0.32%)	71.10%
Mortality experience	(0.18%)	70.92%
Lower actual COLA	0.32%	71.24%
Other factors	0.16%	71.40%
Actual Funded Ratio at 1/1/2016		71.40%



How has the cost of the plan been shared?

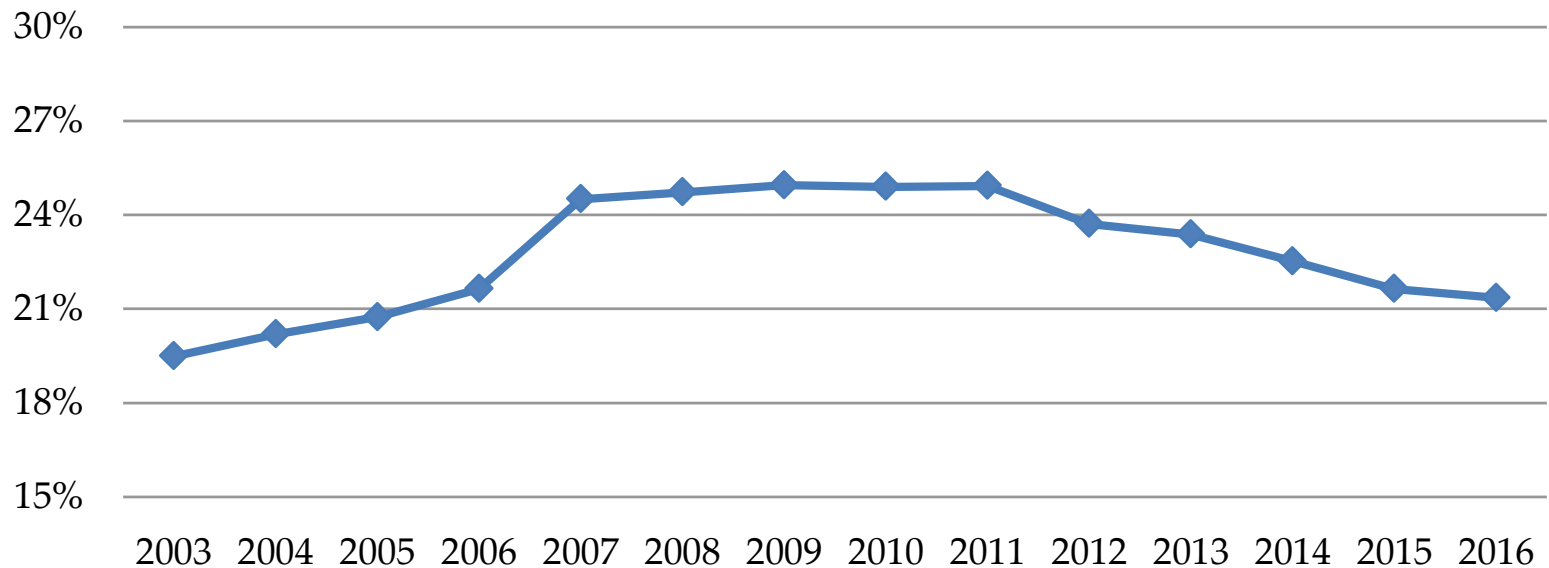
Member Contributions and Employer Contributions



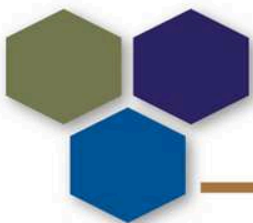


Has the plan's normal cost been stabilized?

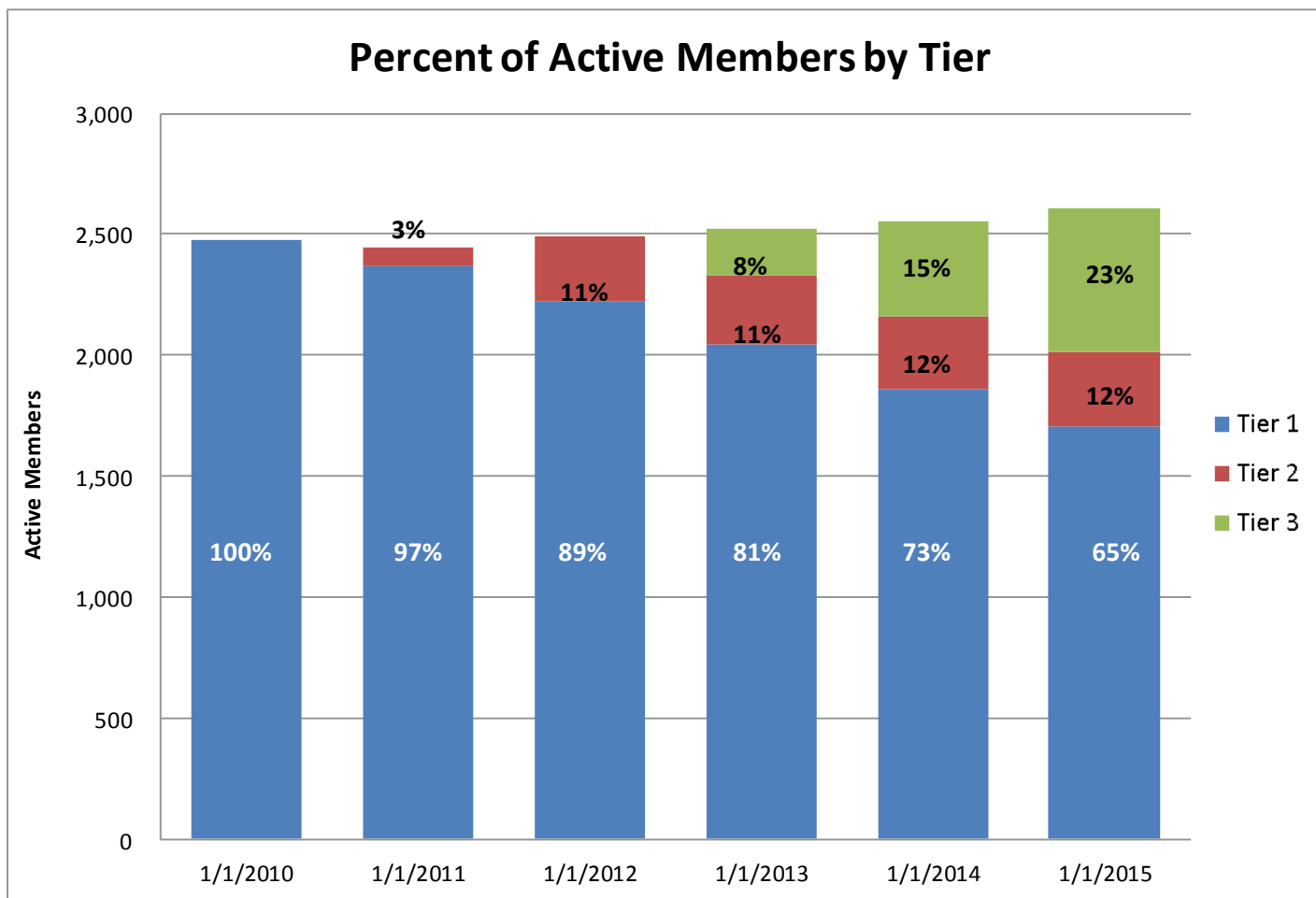
Year by year total normal cost as a percent of payroll*

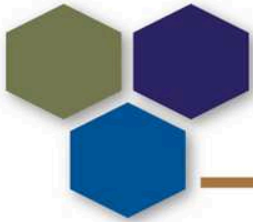


*Total blended normal cost of 21.35% as of January 1, 2016 including Tier 2 and Tier 3 members.



Active Members by Tier

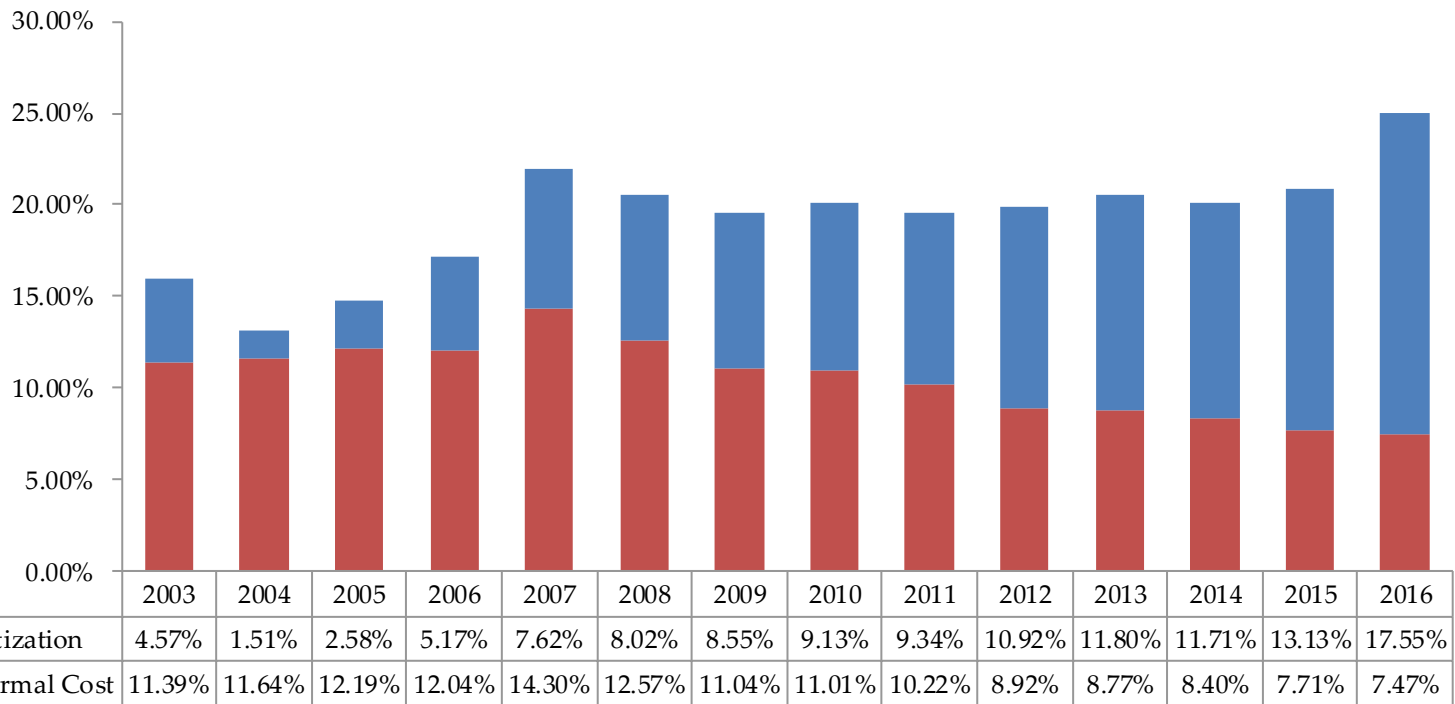


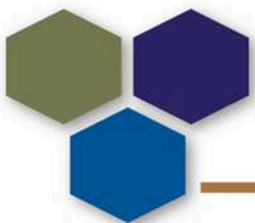


How are County costs split between current costs and amortization of past costs?

Normal Cost and UAAL Amortization

■ Employer Normal Cost ■ UAAL Amortization





Projections

- ◆ Results based on a closed 24 year amortization period
- ◆ Total contribution rate drops significantly once the UAL is fully paid off
- ◆ Results based on level percent of pay financing – means the UAL will increase in the short term based on smaller total contributions but then will decrease in the long term as total compensation and total contributions increase



2016 Projection—With all future members in Tier 3

San Luis Obispo County Pension Trust

Projection Based on January 1, 2016 Actuarial Valuation with Tier 3 (AB 340)

7.125 % Investment Rate of Return Assumption

3.375 % Payroll Growth Assumption

Valuation as of January 1, (1)	Input Market Return for Past Fiscal Year	Market Return for Past Fiscal Year (2)	Total Contribution Rate (3)	Compensation at Valuation (4)	Total Contribution (5)	Actuarial Accrued Liability (AAL) (6)	Actuarial Value of Assets (AVA) (7)	Unfunded AAL (8)	Funded Ratio (9)	Total Normal Cost Rate (10)	Market Value of Assets (MVA) (11)	Funded Ratio Using MVA (12)	Percent Tier 3 Members (13)
2016	7.125%	-1.44%	38.90%	\$ 177	\$ 68.9	\$ 1,749	\$ 1,248	\$ 501	71.4%	21.35%	\$ 1,136	64.9%	22.7%
2017	7.125%	7.125%	39.94%	182	72.8	1,829	1,281	548	70.0%	20.79%	1,203	65.8%	29.3%
2018	7.125%	7.125%	40.63%	188	76.2	1,908	1,326	582	69.5%	20.29%	1,273	66.7%	35.2%
2019	7.125%	7.125%	41.42%	193	79.9	1,987	1,371	616	69.0%	19.84%	1,346	67.7%	40.6%
2020	7.125%	7.125%	42.06%	198	83.5	2,065	1,423	642	68.9%	19.43%	1,421	68.8%	46.0%
2021	7.125%	7.125%	41.99%	204	85.8	2,143	1,497	646	69.8%	19.07%	1,498	69.9%	50.7%
2022	7.125%	7.125%	41.87%	210	88.1	2,219	1,572	647	70.9%	18.73%	1,576	71.0%	55.1%
2023	7.125%	7.125%	41.77%	217	90.4	2,294	1,650	644	71.9%	18.43%	1,654	72.1%	59.3%
2024	7.125%	7.125%	41.66%	223	92.9	2,368	1,729	639	73.0%	18.16%	1,734	73.2%	63.0%
2025	7.125%	7.125%	41.55%	230	95.5	2,440	1,809	631	74.1%	17.92%	1,815	74.4%	66.5%
2026	7.125%	7.125%	41.47%	237	98.2	2,512	1,891	620	75.3%	17.71%	1,897	75.5%	69.6%
2031	7.125%	7.125%	41.32%	276	114.2	2,846	2,327	519	81.8%	16.93%	2,333	82.0%	82.0%
2036	7.125%	7.125%	41.65%	324	134.9	3,154	2,850	304	90.4%	16.46%	2,856	90.5%	90.0%
2041	7.125%	7.125%	16.51%	381	62.9	3,459	3,458	1	100.0%	16.21%	3,464	100.1%	95.1%
2046	7.125%	7.125%	16.42%	450	73.8	3,800	3,799	1	100.0%	16.10%	3,805	100.1%	98.0%

Projection assumes no actuarial gains and losses, other than from assets. Projection based on constant population.

Tier 3 changes include No DROP, 2% COLA, pensionable compensation is capped at \$117,020 for 2016, 3 year Final Average Compensation for members hired on or after January 1, 2013.

All dollar amounts in millions.

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2016 Annual Actuarial Valuation Supplementary Exhibits

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June 16, 2016

Mr. Carl Nelson
Executive Secretary
San Luis Obispo County Pension Trust
1000 Mill Street
San Luis Obispo, CA 93408

Subject: Delay of January 1, 2016 Rate Increase

Dear Carl,

The January 1, 2016 actuarial valuation recommended a rate increase of 4.85% effective as of January 1, 2016. This letter outlines the impact to that rate increase if the increase is deferred until various future dates, spread over different populations and further outlines the split of costs as delineated in our contract with the Pension Trust.

If you have any questions about the information requested above or need any additional information, please contact me at 720-274-7271 or leslie.thompson@gabrielroeder.com or Joe Herm at 720-274-7274 or joe.herm@gabrielroeder.com.
Sincerely,

Gabriel, Roeder, Smith & Company



Leslie L. Thompson, EA, FSA, FCA, MAAA
Senior Consultant

Mr. Carl Nelson

June 16, 2016

Page 2

Implementation date of rate increase:								
Valuation Date-January 1, 2016-total rate increase required:			4.85% of total payroll					
			Splits					
Population	Payroll (000's)	Rate Increase as a percent of applicable payroll	County Pays All (based on applicable payroll)	Member Pays All	Increase split equally		County pays 2/3 (County/Member)	
			County	Member	County	Member	County	Member
Tier 1	\$125,785	6.82%	6.82%	6.82%	3.412%	3.412%	4.550%	2.275%
Tier 1 & 2	\$146,732	5.85%	5.85%	5.85%	2.925%	2.925%	3.900%	1.950%
Tier 1, 2 & 3	\$177,004	4.85%	4.85%	4.85%	2.425%	2.425%	3.233%	1.617%

Implementation date of rate increase:								
July 1, 2016 total rate increase required:			5.00% of total payroll					
			Splits					
Population	Payroll (000's)	Rate Increase as a percent of applicable payroll	County Pays All (based on applicable payroll)	Member Pays All	Increase split equally		County pays 2/3 (County/Member)	
			County	Member	County	Member	County	Member
Tier 1	\$122,418	7.35%	7.35%	7.35%	3.675%	3.675%	4.900%	2.450%
Tier 1 & 2	\$142,804	6.30%	6.30%	6.30%	3.151%	3.151%	4.201%	2.100%
Tier 1, 2 & 3	\$179,966	5.00%	5.00%	5.00%	2.500%	2.500%	3.333%	1.667%

Implementation date of rate increase:								
January 1, 2017 total rate increase required:			5.17% of total payroll					
			Splits					
Population	Payroll (000's)	Rate Increase as a percent of applicable payroll	County Pays All (based on applicable payroll)	Member Pays All	Increase split equally		County pays 2/3 (County/Member)	
			County	Member	County	Member	County	Member
Tier 1	\$118,902	7.96%	7.96%	7.96%	3.978%	3.978%	5.304%	2.652%
Tier 1 & 2	\$138,703	6.82%	6.82%	6.82%	3.410%	3.410%	4.547%	2.273%
Tier 1, 2 & 3	\$182,978	5.17%	5.17%	5.17%	2.585%	2.585%	3.447%	1.723%

Implementation date of rate increase:								
July 1, 2017 total rate increase required:			5.34% of total payroll					
			Splits					
Population	Payroll (000's)	Rate Increase as a percent of applicable payroll	County Pays All (based on applicable payroll)	Member Pays All	Increase split equally		County pays 2/3 (County/Member)	
			County	Member	County	Member	County	Member
Tier 1	\$115,719	8.59%	8.59%	8.59%	4.293%	4.293%	5.723%	2.862%
Tier 1 & 2	\$134,990	7.36%	7.36%	7.36%	3.680%	3.680%	4.906%	2.453%
Tier 1, 2 & 3	\$186,040	5.34%	5.34%	5.34%	2.670%	2.670%	3.560%	1.780%

2016 Actuarial Valuation - Total ARC change by Class

As of: 6/21/16

		2015 Rate	2016 Rate	Change	2016 Rates at	Change
		Total	Total	Total	Total	Total
		Charged	ARC	ARC	ARC	ARC
		(3)	(4)	(5)	(6)	(7)
Bargaining Unit	BU		per GRS (note e)		per GRS (note e)	
COMBINED						
ALL CATEGORIES						
Full year 2015 Average (plus 1.02% increase effective Dec 2015)		34.05%	38.90%	4.85%	39.22%	5.17%
AVERAGE BY CLASS						
All Miscellaneous		32.63%	37.14%	4.51%	37.44%	4.81%
All Probation		33.85%	38.57%	4.72%	38.89%	5.04%
All Safety		42.61%	49.32%	6.71%	49.72%	7.11%

2016 Valuation page 4 & I

e) Total rate in column 5 from January 1, 2016 actuarial valuation composed of a blended ER appropriation plus a distinct EE rate based on the individual normal cost of each member

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San Luis Obispo County Pension Trust
Valuation Results as of January 1, 2016

Valuation Items	Tier 1	Tier 2	Tier 3	Total
MISCELLANEOUS				
Membership				
• Number of Active Members	1,429	261	535	2,225
• Total Payroll (000s)	\$ 101,399	\$ 16,913	\$ 26,587	\$ 144,899
• Average Pay	\$ 70,958	\$ 64,802	\$ 49,695	\$ 65,123
Normal Cost Contribution				
• Total Normal Cost	22.52%	17.24%	14.97%	20.48%
• Member Contributions*	16.06%	8.99%	7.71%	13.32%
• County Normal Cost	6.46%	8.25%	7.26%	7.16%
PROBATION				
Membership				
• Number of Active Members	87	0	23	110
• Total Payroll (000s)	\$ 6,519	\$ -	\$ 1,187	\$ 7,706
• Average Pay	\$ 74,927	\$ -	\$ 51,608	\$ 70,051
Normal Cost Contribution				
• Total Normal Cost	23.14%	0.00%	18.19%	22.36%
• Member Contributions*	17.88%	0.00%	9.05%	16.50%
• County Normal Cost	5.26%	0.00%	9.14%	5.86%
SAFETY				
Membership				
• Number of Active Members	192	48	34	274
• Total Payroll (000s)	\$ 17,867	\$ 4,033	\$ 2,498	\$ 24,399
• Average Pay	\$ 93,060	\$ 84,027	\$ 73,474	\$ 89,047
Normal Cost Contribution				
• Total Normal Cost	26.66%	25.45%	22.71%	26.04%
• Member Contributions*	18.09%	12.58%	11.01%	16.43%
• County Normal Cost	8.57%	12.87%	11.70%	9.61%
TOTAL				
Membership				
• Number of Active Members	1,708	309	592	2,609
• Total Payroll (000s)	\$ 125,785	\$ 20,947	\$ 30,272	\$ 177,004
• Average Pay	\$ 73,645	\$ 67,789	\$ 51,135	\$ 67,844
Normal Cost Contribution				
• Total Normal Cost	23.15%	18.85%	15.75%	21.35%
• Member Contributions*	16.45%	9.68%	8.03%	13.88%
• County Normal Cost	6.70%	9.17%	7.72%	7.47%

* Member contribution rate is a weighted average of all members in their respective group based on their expected contribution rate for 2016.

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San Luis Obispo County Pension Trust

Projection Based on January 1, 2016 Actuarial Valuation with Tier 3 (AB 340)

7.125% Investment Rate of Return Assumption

3.375% Payroll Growth Assumption

(in millions)

Valuation as of January 1,	Input Market Return for Past Fiscal Year	Market Return for Past Fiscal Year	Total Contribution Rate	Compensation at Valuation	Total Contribution	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded AAL	Funded Ratio	Total Normal Cost Rate	Market Value of Assets (MVA)	Funded Ratio Using MVA	Percent Tier 3 Members
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2016	7.125%	-1.44%	38.90%	\$ 177	\$ 68.9	\$ 1,749	\$ 1,248	\$ 501	71.4%	21.35%	\$ 1,136	64.9%	22.7%
2017	7.125%	7.125%	39.94%	182	72.8	1,829	1,281	548	70.0%	20.79%	1,203	65.8%	29.3%
2018	7.125%	7.125%	40.63%	188	76.2	1,908	1,326	582	69.5%	20.29%	1,273	66.7%	35.2%
2019	7.125%	7.125%	41.42%	193	79.9	1,987	1,371	616	69.0%	19.84%	1,346	67.7%	40.6%
2020	7.125%	7.125%	42.06%	198	83.5	2,065	1,423	642	68.9%	19.43%	1,421	68.8%	46.0%
2021	7.125%	7.125%	41.99%	204	85.8	2,143	1,497	646	69.8%	19.07%	1,498	69.9%	50.7%
2022	7.125%	7.125%	41.87%	210	88.1	2,219	1,572	647	70.9%	18.73%	1,576	71.0%	55.1%
2023	7.125%	7.125%	41.77%	217	90.4	2,294	1,650	644	71.9%	18.43%	1,654	72.1%	59.3%
2024	7.125%	7.125%	41.66%	223	92.9	2,368	1,729	639	73.0%	18.16%	1,734	73.2%	63.0%
2025	7.125%	7.125%	41.55%	230	95.5	2,440	1,809	631	74.1%	17.92%	1,815	74.4%	66.5%
2026	7.125%	7.125%	41.47%	237	98.2	2,512	1,891	620	75.3%	17.71%	1,897	75.5%	69.6%
2027	7.125%	7.125%	41.40%	244	101.1	2,581	1,975	607	76.5%	17.52%	1,980	76.7%	72.6%
2028	7.125%	7.125%	41.35%	252	104.1	2,650	2,059	590	77.7%	17.34%	2,065	77.9%	75.3%
2029	7.125%	7.125%	41.32%	260	107.3	2,717	2,146	570	79.0%	17.19%	2,152	79.2%	77.7%
2030	7.125%	7.125%	41.31%	268	110.6	2,782	2,235	547	80.4%	17.05%	2,241	80.6%	80.0%
2031	7.125%	7.125%	41.32%	276	114.2	2,846	2,327	519	81.8%	16.93%	2,333	82.0%	82.0%
2032	7.125%	7.125%	41.33%	285	117.9	2,909	2,423	487	83.3%	16.81%	2,429	83.5%	83.9%
2033	7.125%	7.125%	41.37%	294	121.8	2,972	2,522	450	84.9%	16.71%	2,528	85.1%	85.7%
2034	7.125%	7.125%	41.43%	304	125.9	3,033	2,626	407	86.6%	16.62%	2,632	86.8%	87.3%
2035	7.125%	7.125%	41.52%	314	130.3	3,094	2,735	359	88.4%	16.54%	2,741	88.6%	88.7%
2036	7.125%	7.125%	41.65%	324	134.9	3,154	2,850	304	90.4%	16.46%	2,856	90.5%	90.0%
2037	7.125%	7.125%	41.84%	335	140.0	3,214	2,972	242	92.5%	16.40%	2,978	92.6%	91.2%
2038	7.125%	7.125%	42.15%	346	145.7	3,274	3,102	172	94.7%	16.34%	3,108	94.9%	92.3%
2039	7.125%	7.125%	42.82%	357	152.9	3,335	3,242	93	97.2%	16.29%	3,248	97.4%	93.3%
2040	7.125%	7.125%	16.97%	369	62.6	3,396	3,394	3	99.9%	16.25%	3,400	100.1%	94.2%
2041	7.125%	7.125%	16.51%	381	62.9	3,459	3,458	1	100.0%	16.21%	3,464	100.1%	95.1%
2042	7.125%	7.125%	16.48%	394	64.9	3,523	3,521	1	100.0%	16.18%	3,527	100.1%	95.8%
2043	7.125%	7.125%	16.45%	407	67.0	3,588	3,587	1	100.0%	16.15%	3,593	100.1%	96.5%
2044	7.125%	7.125%	16.44%	421	69.2	3,656	3,655	1	100.0%	16.13%	3,661	100.1%	97.1%
2045	7.125%	7.125%	16.43%	435	71.5	3,727	3,725	1	100.0%	16.12%	3,731	100.1%	97.6%
2046	7.125%	7.125%	16.42%	450	73.8	3,800	3,799	1	100.0%	16.10%	3,805	100.1%	98.0%

Projection assumes no actuarial gains and losses, other than from assets. Projection based on constant population.

Tier 3 changes include No DROP, 2% COLA, pensionable compensation is capped at \$117,020 for 2016, 3 year Final Average Compensation for members hired on or after January 1, 2013.

All dollar amounts in millions.

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